

Hawkesbury

Commercial Multi-Fold Door



Hawkesbury Commercial Multi-Fold Door

Technical Manual
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alspec[®]
EVERYTHING ALUMINIUM
& HARDWARE

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Contents

1. TECHNICAL MANUAL RELEASE NOTES	1.1
2. TECHNICAL SPECIFICATIONS	2.1
3. LOADING TABLES	3.1
Loading Table Guide	3.1
SE70 Bi Fold Stiles	3.2
SE71 Bi Fold Stiles	3.3
SE73 XHD Bi Fold Stiles T6	3.4
SE80 Wide Bi Fold Stiles	3.5
SE81 HD Wide Bi Fold Stiles	3.6
SE470 Bi Fold Stiles	3.7
SE471 HD Bi Fold Stiles	3.8
SE473 XHD Bi Fold Stiles T6	3.9
4. TEST SUMMARY	4.1
AS2047 - Bi-Fold Window 4 Right / FFFF	4.1
AS2047 - 1 Left 3 Right Open Out	4.2
AS2047 - 3 Left Open Out	4.3
AS2047 - 4 Left Open Out	4.4
AS2047 - 2 Left 2 Right Open Out	4.5
AS2047 - 4 Left Open Out	4.6
Acoustic - AS/NZS ISO 717.1	4.7
BAL40 - AS 1530.8.1-2007	4.7
5. EXTRUSIONS	5.1
6. HARDWARE & COMPONENTS	6.1
Glazing Wedges	6.1
Backing Gaskets	6.2
Seals	6.2
Fasteners	6.3
Frame Joint Gaskets	6.3
Accessories	6.4
E2A Hardware	6.6
E2i Hardware	6.7
E3A Hardware	6.8
E2A Hardware Selection Chart - Outward Opening (up to 60kg per panel)	6.10
E3A Hardware Selection Chart - Outward Opening (up to 115kg per panel)	6.11
Silicone	6.12
Silicone Product Codes	6.13
7. TYPICAL ELEVATION	7.1

8. TYPICAL DETAILS	8.1
Typical Head & Sill Detail - E3A Hardware	8.1
Typical Head & Sill Detail - E2A Hardware	8.2
Typical Head Fixing Detail	8.3
Top Track Assembly Detail	8.4
Sill Setout Dimensions	8.5
Typical LH Jamb, Hinge/ Intermediate Meeting Stile & Lock Stile / Jamb	8.6
Typical Lock Meeting Stile Detail	8.7
External Corner Detail	8.8
Internal Corner Detail	8.9
Flush Bolt Guide Orientations	8.10
Vertical Detail - 150mm Head & Transom - Open In	8.12
Vertical Detail - 150mm Transom & Hunter Evo Low Lite - Open In	8.13
Horizontal Detail - LH Jamb, Hinge Stile, Meeting Stile & Lock Stile / Jamb - Open In	8.14
Horizontal Detail - Hunter Evo Low Lite Jamb / Mullion	8.15
Vertical Detail - Open Out - Std Sill & Centor S4 Screen	8.16
Horizontal Detail - Door Open Out & Centor S4 Screen	8.17
Typical Flat Threshold	8.18
Optional Sill Details	8.19
9. CUTTING FORMULAS	9.1
2 Left or 2 Right	9.1
1 Left 1 Right	9.2
2 Left 1 Right or 1 Left 2 Right	9.3
3 Left or 3 Right	9.4
2 Left 2 Right - E2A Hardware	9.5
2 Left 2 Right - E3A Hardware	9.6
3 Left 1 Right or 1 Left 3 Right	9.7
4 Left 1 Right or 1 Left 4 Right	9.8
3 Left 2 Right or 3 Left 2 Right	9.9
5 Left or 5 Right	9.10
3 Left 3 Right	9.11
7 Left or 7 Right	9.12
4 Left 3 Right or 3 Left 4 Right	9.13
5 Left 2 Right or 2 Left 5 Right	9.14
10. MANUFACTURING DETAILS	10.1
Typical Jamb Preparation	10.1
Track Preparation	10.2
Pivot Machining Detail	10.3
Top & Bottom Rail Preparation - Single Glazed	10.4

Midrail Preparation - Single Glazed	10.5
Top & Bottom Rail Preparation - Double Glazed	10.6
Midrail Preparation - Double Glazed	10.7
MFE10 Head Pivot Machining	10.8
MF100 Sill Drainage	10.9
MFE23 Sill Drainage for Inward & Outward Opening Doors	10.10
MFE21 Sill Drainage for Inward & Outward Opening Doors	10.11
AD808 100mm Flush Grate Sill	10.12
Typical Hinge Mounting Details - E2A + S/S	10.13
Typical Hinge Mounting Details - E3A + S/S	10.14
Outward Opening - Hardware Location & Panel Definitions	10.15
Typical Pivot / Intermediate Hinge Mounting Details - E2A	10.16
Typical Pivot / Intermediate Hinge Mounting Details - E2A S/S	10.18
Typical Pivot / Intermediate Hinge Mounting Details - E3A	10.20
Lock Stile Preparation to Suit Lockwood 551 Swing Bolt Lock	10.22
Lock Stile Preparation Commercial Mortice Locks	10.23
Lock Stile Preparation Commercial Mortice Lock ASSA 3772 60mm Backset	10.24
Lock Stile Preparation Commercial Mortice Lock Dorma MS600 60mm Backset	10.25
Jamb & Meeting Stile Commercial Mortice Lock Strike Preparation	10.26
Lock Stile Preparation Lockwood Optimum / Killara Handles 30mm Backset	10.27
Lock Stile Preparation Lockwood Optimum / Killara Handles 40mm Backset	10.28
Jamb & Meeting Stile Lockwood Optimum Strike Preparation	10.29
Lock Stile Preparation Allegion 2802 & 2804 Lock Body + 288 / 288M Furniture	10.30
Lock Stile Preparation Verta Hinged Door Kit	10.31
Jamb & Meeting Stile Preparation Verta Hinged Door Kit	10.32
Lock Stile Preparation HB8813 30mm Backset Lock & Lever Kit	10.33
Lock Stile Preparation HB8813 55mm Backset Lock & Lever Kit	10.34
Jamb & Meeting Stile Preparation HB8813 Striker Plates	10.35
Twin Bolt Lock Preparation Killara Door Stile	10.36
Twin Bolt Lock Preparation Brio 286 & 286DL	10.37
Meeting Stile Preparation Flush Bolt Machining	10.38

11. ASSEMBLY DETAILS 11.1

Door Panel Corner Assembly	11.1
Glass Support Block Details	11.2
Hinge Layout	11.3
Mid Rail Assembly	11.4
Spigot Fitting Instructions	11.5
CE23 Weatherseal Arrangement Detail	11.6
Weather Strip Assembly	11.7

Bi-Fold Flat Sill Door	11.8
Installation Details	11.9

12. GLAZING DETAILS	12.1
----------------------------	-------------

Single Glazed Details - Non Captive	12.1
Single Glazed Details - Captive	12.2
Double Glazed Details - Non Captive	12.3
Double Glazed Details - Captive	12.4
Door Glazing & Bracing Details - Glass Insertion Sequence	12.5

13. CARE & MAINTENANCE	13.1
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2. Technical Specifications

ALUMINIUM

Aluminium frames should be manufactured using Alspec's HAWKESBURY COMMERCIAL MULTI-FOLD DOOR.

E2 hardware used for panels up to 60kg.

E3 hardware used for panels over 60kg and up to 115kg.

The maximum panel height shall be 3000mm.

The maximum panel width shall be 1200mm.

The maximum number of panels in each direction is 8.

Maximum Head Deflection Tolerance +1mm/-5mm.

HARDWARE

- The operating hardware shall be Alspec's stainless steel E2A.
- The operating hardware shall be Alspec's stainless steel E3A.
- All other hardware as per Alspec Technical Manual.

FINISHES

- All powder coated material shall be produced to AS3715.
- All anodised material shall be produced to AS1231.

TESTING

Product has test reports to show compliance to AS2047.

Product has been WERS Certified.

Product has been Acoustic Tested to AS1191:2002.

Product has been Bushfire Tested to AS1530.8.1:2007.

All products are available from Alspec (A.B.N. 63 001 252 259) as detailed in the "Alspec" catalogue or on the Internet at www.alspec.com.au. All such framing is to be constructed, assembled and fixed to meet the requirement of AS2047 (windows in buildings), AS1170 (loading code). All glass, glazing rubbers, seals and gaskets shall be applied in accordance with the requirements of AS1288 (glass in buildings - selection and installation).

Fabricators of the HAWKESBURY COMMERCIAL MULTI-FOLD DOOR system should seek certification by a consultant structural engineer as to the framing being acceptable for the design wind pressure and deflection characteristics required of the site.

3. Loading Tables

Loading Table Guide

The following pages contain wind pressure tables that may be used as a guide to the suitability of Alspec Aluminium Systems framing for various wind loads and frame sizes.

In most situations the Design Wind Pressure for a particular building should be available from the building designer or engineer.

Framing must be checked for suitability.

For a window / door frame, which is 2400mm high and 1000mm wide, refer to the table below;

Step 1: Locate the height

Step 2: Locate the width

Step 3: Determine the Maximum wind pressure based on the height and width.

SECTION PART NO.	Panel Height	Maximum Design Pressure (Pa)					
	2850	S	1040	840	720	630	570
		U	2410	1960	1660	1460	1310
	2700	S	1230	1000	850	750	680
		U	2700	2190	1870	1640	1480
	2550	S	1460	1200	1020	910	830
		U	3040	2470	2210	1860	1690
	2400	S	1770	1450	1250	1080	1010
		U	3440	2810	2410	2030	1940
	2250	S	2160	1780	1530	1370	1270
		U	3940	3230	2780	2470	2270
	2100	S	2670	2210	1920	1730	1610
		U	4550	3750	3240	2900	2680
Ixx = xxx x xxx mm4	Panel Width	800	1000	1200	1400	1600	

Diagram illustrating the steps to find the Maximum Design Pressure (Pa) for a window/door frame:

- STEP 1:** Locate the height (2400mm) in the Panel Height column.
- STEP 2:** Locate the width (1000mm) in the Panel Width column.
- STEP 3:** Determine the Maximum wind pressure based on the height and width. The intersection of 2400mm height and 1000mm width shows a pressure of 1450 Pa (Suction) and 2810 Pa (Ultimate).

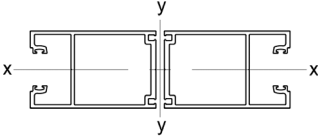
3. Loading Tables

SE70 Bi Fold Stiles

Max Stress = 110Mpa

S = Serviceability limit state L/100

U = Ultimate limit state

SG BI FOLD STILES SE70	Panel Height	Maximum Design Pressure (Pa)							
	3000	S	1250	1080	950	850	770	710	660
		U	2730	2350	2070	1850	1680	1540	1420
	2900	S	1390	1200	1060	950	860	790	730
		U	2920	2520	2220	1980	1800	1650	1530
	2800	S	1550	1330	1180	1050	960	880	820
		U	3140	2710	2380	2130	1940	1780	1640
	2700	S	1730	1490	1320	1180	1070	990	920
		U	3380	2920	2570	2300	2090	1920	1780
	2600	S	1940	1670	1480	1330	1210	1110	1030
		U	3650	3150	2780	2490	2260	2080	1930
	2500	S	2190	1890	1670	1500	1370	1260	1170
		U	3960	3410	3010	2700	2460	2260	2100
	2400	S	2480	2140	1890	1700	1550	1430	1340
		U	4300	3710	3280	2940	2680	2470	2290
	2300	S	2820	2440	2160	1950	1780	1640	1530
		U	4690	4050	3580	3220	2930	2710	2520
	2200	S	3000	2800	2480	2240	2050	1890	1770
		U	5140	4450	3930	3540	3230	2980	2780
	2100	S	3000	3000	2870	2590	2370	2200	2060
		U	5660	4900	4330	3910	3570	3300	3080
$I_{xx} = 376 \times 10^3 \text{ mm}^4$	Panel Width		600	700	800	900	1000	1100	1200

Tables are based on theoretical section properties

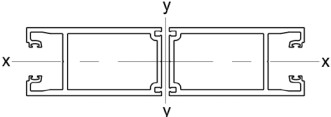
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SE71 Bi Fold Stiles

Max Stress = 110Mpa

S = Serviceability limit state L/100

U = Ultimate limit state

SG BI FOLD STILES SE71	Panel Height	Maximum Design Pressure (Pa)							
	3000	S	2240	1930	1700	1520	1380	1270	1170
		U	4920	4230	3730	3330	3020	2770	2560
	2900	S	2480	2140	1890	1690	1530	1410	1310
		U	5270	4540	3990	3570	3240	2970	2750
	2800	S	2760	2380	2100	1880	1710	1570	1460
		U	5660	4870	4290	3840	3490	3200	2960
	2700	S	3000	2660	2350	2110	1920	1760	1640
		U	6090	5250	4630	4150	3760	3460	3200
	2600	S	3000	2990	2640	2370	2160	1990	1850
		U	6580	5670	5000	4480	4080	3750	3470
	2500	S	3000	3000	2980	2680	2440	2250	2090
		U	7120	6150	5420	4870	4430	4070	3780
	2400	S	3000	3000	3000	3000	2770	2560	2390
		U	7740	6690	5900	5300	4830	4450	4130
	2300	S	3000	3000	3000	3000	3000	2930	2740
		U	8450	7300	6450	5800	5290	4870	4540
	2200	S	3000	3000	3000	3000	3000	3000	3000
		U	9000	8010	7080	6370	5810	5370	5010
	2100	S	3000	3000	3000	3000	3000	3000	3000
		U	9000	8820	7810	7030	6430	5940	5560
$I_{xx} = 670 \times 10^3 \text{ mm}^4$	Panel Width		600	700	800	900	1000	1100	1200

Tables are based on theoretical section properties

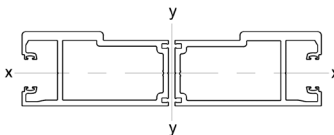
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SE73 XHD Bi Fold Stiles T6

Max Stress = 210Mpa

S = Serviceability limit state L/100

U = Ultimate limit state

SG XHD BI FOLD STILES SE73 T6	Panel Height	Maximum Design Pressure (Pa)							
	3000	S	3000	2880	2540	2270	2060	1890	1750
		U	9000	9000	9000	8100	7350	6730	6230
	2900	S	3000	3000	2810	2520	2290	2100	1950
		U	9000	9000	9000	8690	7880	7230	6690
	2800	S	3000	3000	3000	2810	2550	2350	2180
		U	9000	9000	9000	9000	8480	7780	7210
	2700	S	3000	3000	3000	3000	2860	2630	2440
		U	9000	9000	9000	9000	9000	8410	7790
	2600	S	3000	3000	3000	3000	3000	2960	2750
		U	9000	9000	9000	9000	9000	9000	8450
	2500	S	3000	3000	3000	3000	3000	3000	3000
		U	9000	9000	9000	9000	9000	9000	9000
	2400	S	3000	3000	3000	3000	3000	3000	3000
		U	9000	9000	9000	9000	9000	9000	9000
	2300	S	3000	3000	3000	3000	3000	3000	3000
		U	9000	9000	9000	9000	9000	9000	9000
	2200	S	3000	3000	3000	3000	3000	3000	3000
		U	9000	9000	9000	9000	9000	9000	9000
	2100	S	3000	3000	3000	3000	3000	3000	3000
		U	9000	9000	9000	9000	9000	9000	9000
$I_{xx} = 1000 \times 10^3 \text{ mm}^4$	Panel Width		600	700	800	900	1000	1100	1200

Tables are based on theoretical section properties

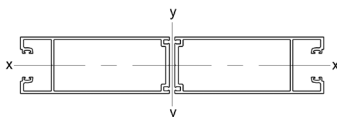
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SE80 Wide Bi Fold Stiles

Max Stress = 110Mpa

S = Serviceability limit state L/100

U = Ultimate limit state

SG WIDE BI FOLD STILES SE80		Panel Height	Maximum Design Pressure (Pa)							
		3000	S	1810	1560	1370	1230	1120	1020	950
			U	3980	3430	3010	2700	2440	2240	2070
		2900	S	2010	1730	1530	1370	1240	1140	1060
			U	4260	3670	3230	2890	2620	2400	2230
		2800	S	2230	1930	1700	1520	1380	1270	1180
			U	4580	3940	3470	3110	2820	2590	2400
		2700	S	2500	2150	1900	1710	1550	1430	1320
			U	4930	4250	3740	3350	3050	2800	2590
		2600	S	2800	2420	2140	1920	1740	1610	1490
			U	5320	4590	4050	3630	3300	3030	2810
		2500	S	3000	2730	2410	2170	1970	1820	1690
			U	5770	4980	4390	3940	3580	3290	3060
		2400	S	3000	3000	2730	2460	2240	2070	1930
			U	6270	5410	4780	4290	3910	3600	3340
		2300	S	3000	3000	3000	2810	2570	2370	2210
			U	6840	5910	5220	4690	4280	3940	3670
		2200	S	3000	3000	3000	3000	2950	2730	2560
			U	7490	6480	5730	5150	4700	4340	4050
		2100	S	3000	3000	3000	3000	3000	3000	2980
			U	8240	7130	6320	5690	5200	4810	4500
Ixx = 543 x 10 ³ mm ⁴		Panel Width	600	700	800	900	1000	1100	1200	

Tables are based on theoretical section properties

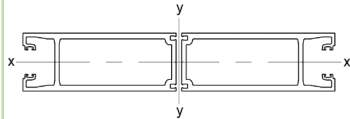
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SE81 HD Wide Bi Fold Stiles

Max Stress = 110Mpa

S = Serviceability limit state L/100

U = Ultimate limit state

SG HD WIDE BI FOLD STILES SE81	Panel Height	Maximum Design Pressure (Pa)							
	3000	S	3000	2740	2410	2160	1960	1800	1660
		U	6960	6000	5280	4720	4280	3920	3630
	2900	S	3000	3000	2670	2400	2180	2000	1850
		U	7460	6430	5660	5060	4590	4210	3900
	2800	S	3000	3000	2980	2670	2430	2230	2070
		U	8010	6910	6080	5450	4940	4530	4200
	2700	S	3000	3000	3000	2990	2720	2500	2320
		U	8630	7440	6550	5870	5330	4900	4540
	2600	S	3000	3000	3000	3000	3000	2810	2620
		U	9000	8040	7090	6350	5770	5310	4920
	2500	S	3000	3000	3000	3000	3000	3000	2970
		U	9000	8710	7680	6890	6270	5770	5360
	2400	S	3000	3000	3000	3000	3000	3000	3000
		U	9000	9000	8360	7510	6840	6300	5860
	2300	S	3000	3000	3000	3000	3000	3000	3000
		U	9000	9000	9000	8210	7490	6900	6430
	2200	S	3000	3000	3000	3000	3000	3000	3000
		U	9000	9000	9000	9000	8230	7600	7090
	2100	S	3000	3000	3000	3000	3000	3000	3000
		U	9000	9000	9000	9000	9000	8420	7870
$I_{xx} = 949 \times 10^3 \text{ mm}^4$	Panel Width		600	700	800	900	1000	1100	1200

Tables are based on theoretical section properties

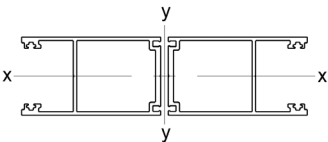
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SE470 Bi Fold Stiles

Max Stress = 110Mpa

S = Serviceability limit state L/100

U = Ultimate limit state

DG BI FOLD STILES SE470	Panel Height	Maximum Design Pressure (Pa)							
	3000	S	1340	1160	1020	910	830	760	700
		U	2950	2540	2230	2000	1810	1660	1530
	2900	S	1490	1280	1130	1010	920	840	780
		U	3160	2720	2390	2140	1940	1780	1650
	2800	S	1650	1430	1260	1130	1020	940	870
		U	3390	2920	2570	2300	2090	1920	1780
	2700	S	1850	1600	1410	1260	1150	1060	980
		U	3650	3150	2770	2480	2260	2070	1920
	2600	S	2070	1790	1580	1420	1290	1190	1100
		U	3940	3400	3000	2690	2440	2240	2080
	2500	S	2340	2020	1780	1600	1460	1350	1250
		U	4270	3690	3250	2920	2650	2440	2270
	2400	S	2650	2290	2020	1820	1660	1530	1430
		U	4640	4010	3540	3180	2890	2660	2480
	2300	S	3000	2610	2310	2080	1900	1760	1640
		U	5060	4380	3870	3480	3170	2920	2720
	2200	S	3000	2990	2650	2390	2190	2020	1890
		U	5550	4800	4240	3820	3480	3220	3000
	2100	S	3000	3000	3000	2770	2540	2350	2210
		U	6100	5280	4680	4210	3850	3560	3330
$I_{xx} = 402 \times 10^3 \text{ mm}^4$	Panel Width		600	700	800	900	1000	1100	1200

Tables are based on theoretical section properties

3. Loading Tables

SE471 HD Bi Fold Stiles

Max Stress = 110Mpa

S = Serviceability limit state L/100

U = Ultimate limit state

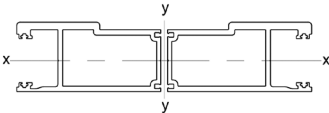
DG HD BI FOLD STILES SE471	Panel Height	Maximum Design Pressure (Pa)							
	3000	S	2360	2040	1790	1610	1460	1340	1240
		U	5190	4470	3930	3510	3190	2920	2700
	2900	S	2620	2260	1990	1780	1620	1490	1380
		U	5550	4790	4210	3770	3420	3140	2900
	2800	S	2910	2510	2220	1990	1810	1660	1540
		U	5970	5140	4530	4050	3680	3380	3130
	2700	S	3000	2810	2480	2220	2020	1860	1730
		U	6420	5540	4880	4370	3970	3650	3380
	2600	S	3000	3000	2780	2500	2280	2090	1950
		U	6940	5980	5280	4730	4300	3950	3660
	2500	S	3000	3000	3000	2820	2570	2370	2210
		U	7510	6490	5720	5130	4670	4300	3990
	2400	S	3000	3000	3000	3000	2930	2700	2520
		U	8170	7050	6230	5590	5090	4690	4360
	2300	S	3000	3000	3000	3000	3000	3000	2890
		U	8910	7700	6800	6120	5570	5140	4790
	2200	S	3000	3000	3000	3000	3000	3000	3000
		U	9000	8440	7470	6720	6130	5660	5280
	2100	S	3000	3000	3000	3000	3000	3000	3000
		U	9000	9000	8230	7420	6780	6270	5860
Ixx = 707 x 10 ³ mm ⁴	Panel Width	600	700	800	900	1000	1100	1200	

Tables are based on theoretical section properties

3. Loading Tables

SE473 XHD Bi Fold Stiles T6

Max Stress = 210Mpa S = Serviceability limit state L/100 U = Ultimate limit state

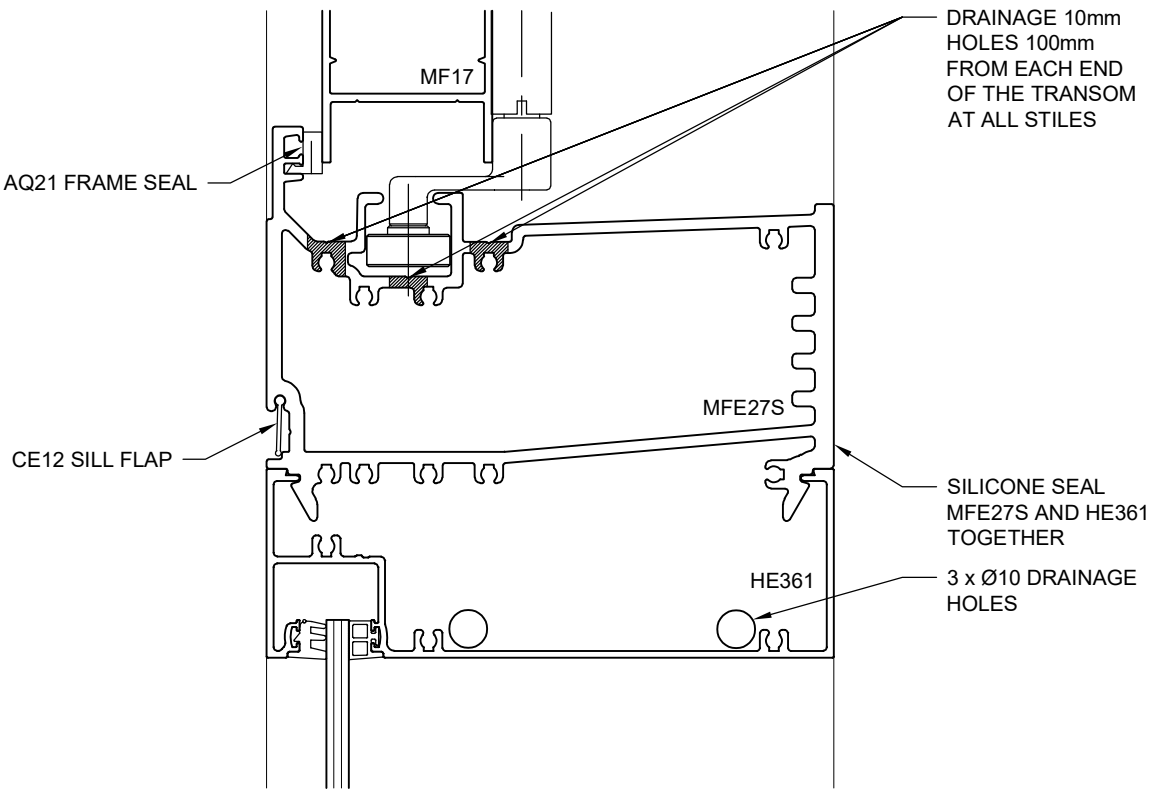
DG HD BI FOLD STILES SE473 T6	Panel Height	Maximum Design Pressure (Pa)							
	3000	S	3000	2870	2520	2260	2050	1880	1740
		U	9000	9000	8910	7980	7230	6630	6130
	2900	S	3000	3000	2800	2510	2280	2090	1940
		U	9000	9000	9000	8550	7760	7110	6580
	2800	S	3000	3000	3000	2800	2540	2340	2170
		U	9000	9000	9000	9000	8350	7660	7090
	2700	S	3000	3000	3000	3000	2850	2620	2430
		U	9000	9000	9000	9000	9000	8270	7670
	2600	S	3000	3000	3000	3000	3000	2950	2740
		U	9000	9000	9000	9000	9000	8960	8320
	2500	S	3000	3000	3000	3000	3000	3000	3000
		U	9000	9000	9000	9000	9000	9000	9000
	2400	S	3000	3000	3000	3000	3000	3000	3000
		U	9000	9000	9000	9000	9000	9000	9000
	2300	S	3000	3000	3000	3000	3000	3000	3000
		U	9000	9000	9000	9000	9000	9000	9000
	2200	S	3000	3000	3000	3000	3000	3000	3000
		U	9000	9000	9000	9000	9000	9000	9000
	2100	S	3000	3000	3000	3000	3000	3000	3000
		U	9000	9000	9000	9000	9000	9000	9000
$I_{xx} = 995 \times 10^3 \text{ mm}^4$	Panel Width		600	700	800	900	1000	1100	1200

Tables are based on theoretical section properties

4. Test Summary

AS2047 - Bi-Fold Window 4 Right / FFFF

TEST REPORT:	AS12-194
SYSTEM CONFIGURATION	MFE27S/HE361 Transom and MF14/MF14 Mullion
TEST SAMPLE SIZE	2.6m high x 3.6m wide
SERVICEABILITY LOAD	+/- 3.008 kPa
ULTIMATE LOAD	+/- 4.024 kPa
WATER PENETRATION	450 Pa
AIR INFILTRATION @ 75Pa	+ 0.46 L/m/s ² - 0.72 L/m/s ²



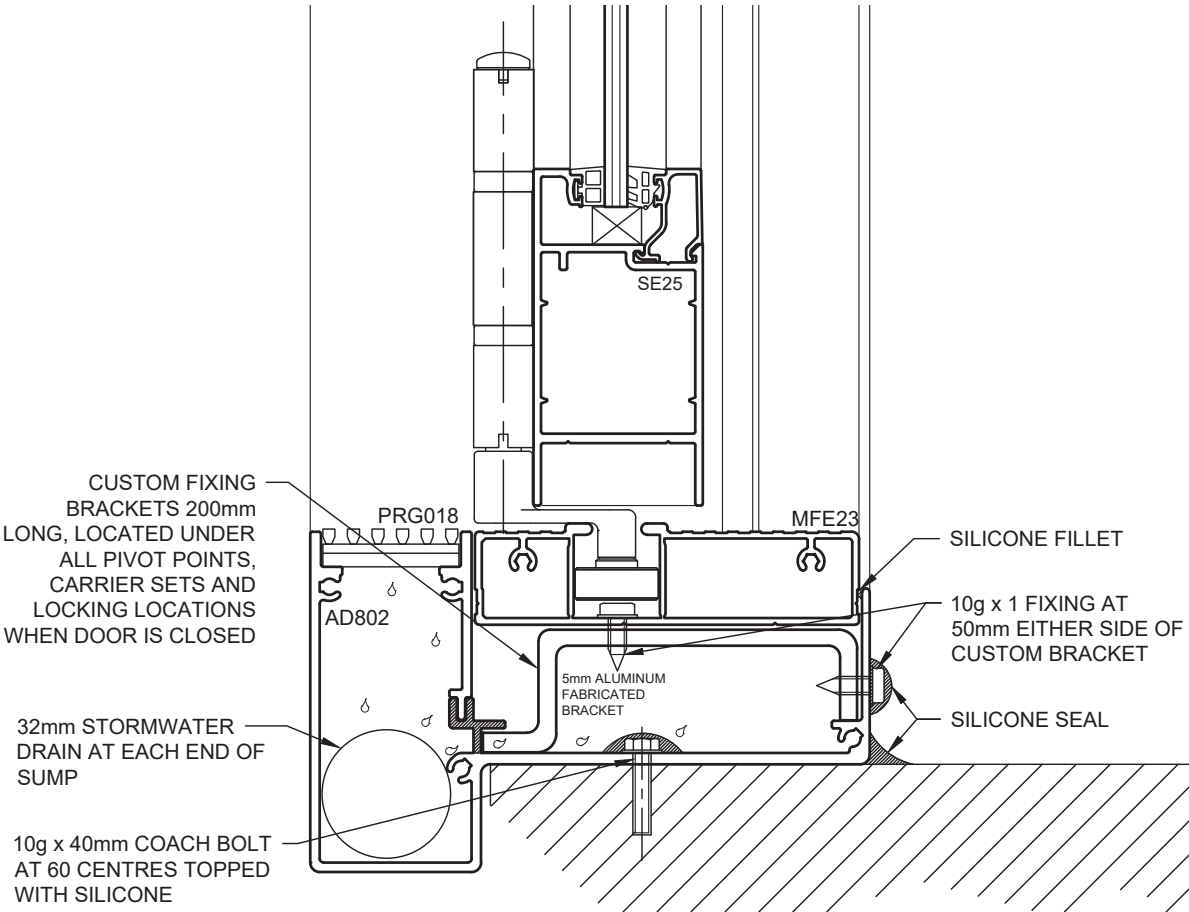
DISCLAIMER:

Please note that the test results shown above reflect specific configurations of a system and are representative only. If a specific high wind load or a different configuration (i.e. changes to frames, transoms, mullions) is required on a project please discuss with Alspec prior to commencement.

4. Test Summary

AS2047 - 1 Left 3 Right Open Out

TEST REPORT:	AS17-331
SYSTEM CONFIGURATION	100mm Sump Sill
TEST SAMPLE SIZE	3.0m high x 3.98m wide
SERVICEABILITY LOAD	+/- 1.8 kPa
ULTIMATE LOAD	+ 5.3 kPa - 4.3 kPa
AIR INFILTRATION @ 75Pa	+ 3.4 L/m/s ² - 3.57 L/m/s ²
OPERATING FORCE TEST INITIATING MOVEMENT SUSTAINING MOVEMENT	24.9 N 19.8 N



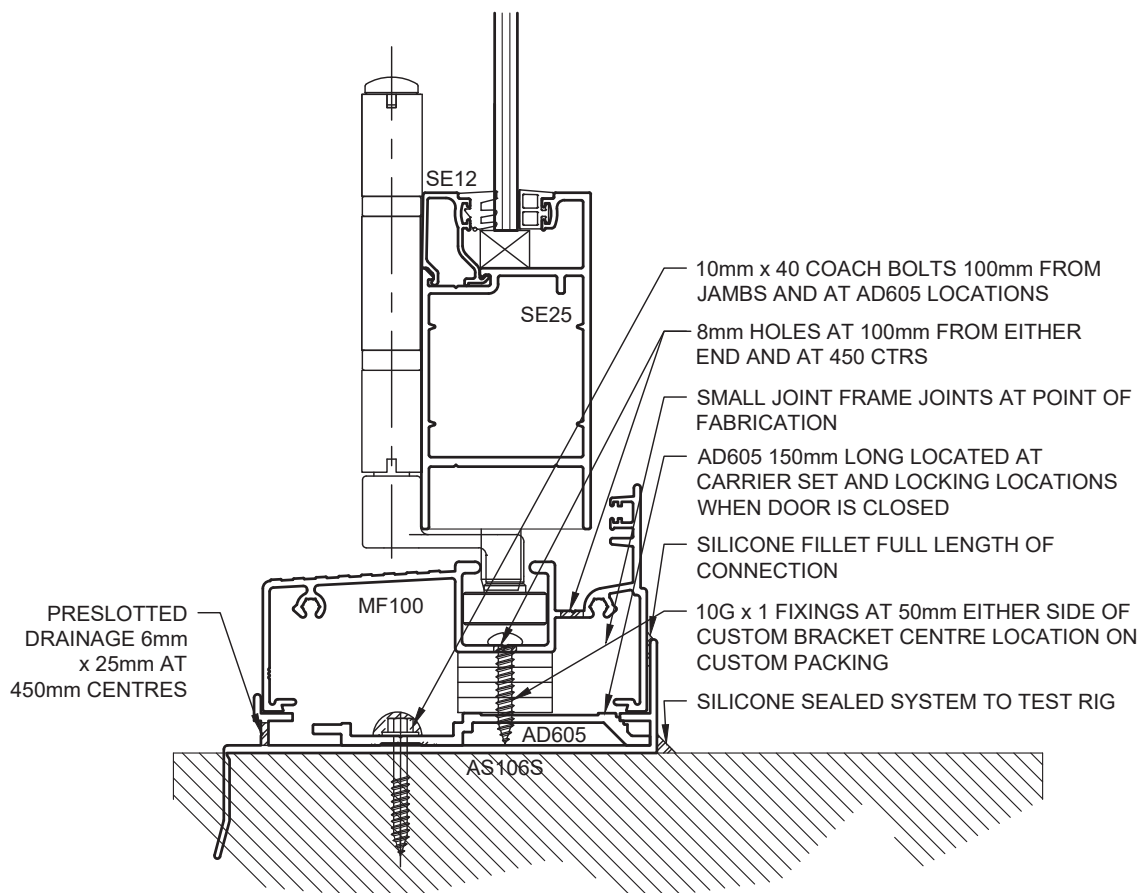
DISCLAIMER:

Please note that the test results shown above reflect specific configurations of a system and are representative only. If a specific high wind load or a different configuration (i.e. changes to frames, transoms, mullions) is required on a project please discuss with Alspec prior to commencement.

4. Test Summary

AS2047 - 3 Left Open Out

TEST REPORT:	OT20-043
SYSTEM CONFIGURATION	MF100 HP Sill, SE73 Door Stiles, AS106 Sub Sill and Angles
TEST SAMPLE SIZE	3.0m high x 3.02m wide
SERVICEABILITY LOAD	+/- 1.25 kPa
ULTIMATE LOAD	+/- 3.025 kPa
WATER PENETRATION	303 Pa
AIR INFILTRATION @ 75Pa	+ 0.15 L/m/s ² - 0.18 L/m/s ²
OPERATING FORCE TEST	
INITIATING MOVEMENT	13.4N
SUSTAINING MOVEMENT	16.1N



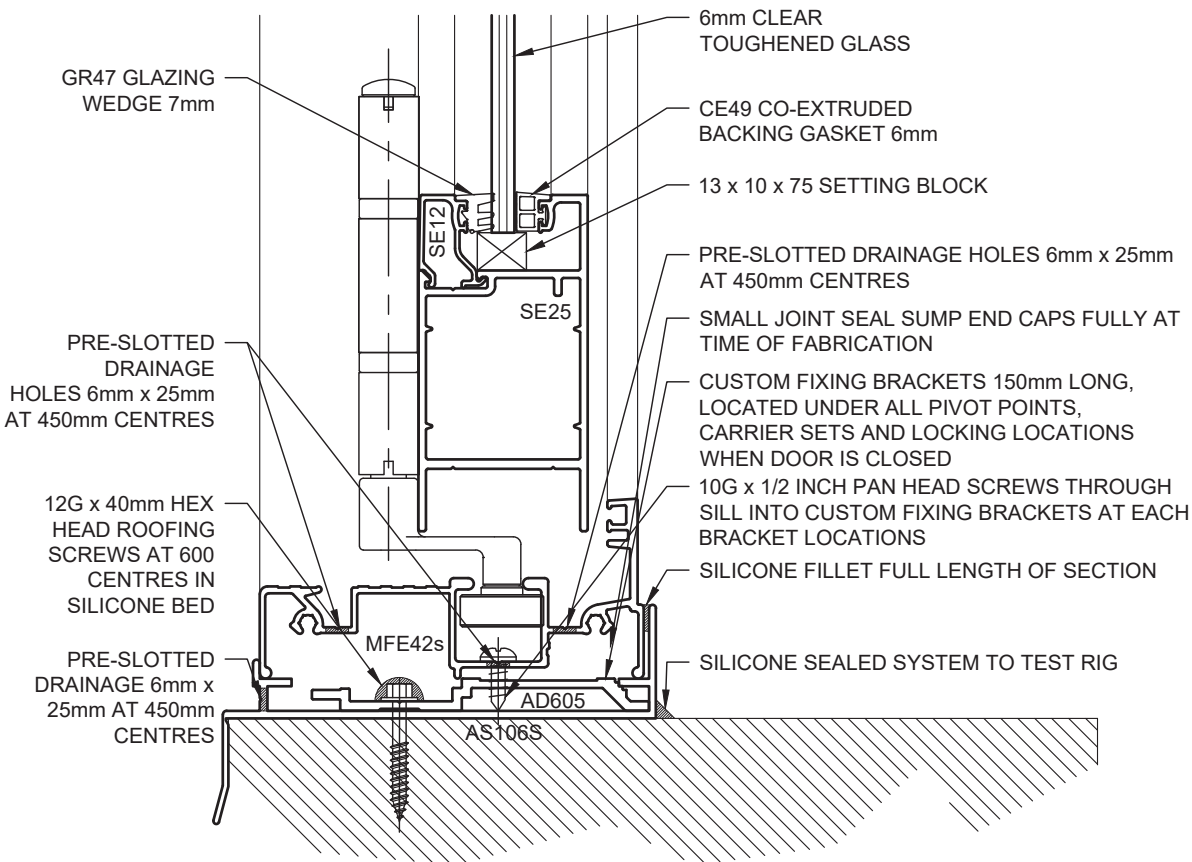
DISCLAIMER:

Please note that the test results shown above reflect specific configurations of a system and are representative only. If a specific high wind load or a different configuration (i.e. changes to frames, transoms, mullions) is required on a project please discuss with Alspec prior to commencement.

4. Test Summary

AS2047 - 4 Left Open Out

TEST REPORT:	OT21-045
SYSTEM CONFIGURATION	MFE42s Sill, SE73 Door Stiles, AS106 Sub Sill and Angles
TEST SAMPLE SIZE	2.997m high x 4.590m wide
SERVICEABILITY LOAD	+/- 1.00 kPa
ULTIMATE LOAD	+/- 1.604 kPa
WATER PENETRATION	240 Pa
AIR INFILTRATION @ 75Pa	+ 0.16 L/m/s ² - 0.14 L/m/s ²
OPERATING FORCE TEST	
INITIATING MOVEMENT	15.6N
SUSTAINING MOVEMENT	13.7N



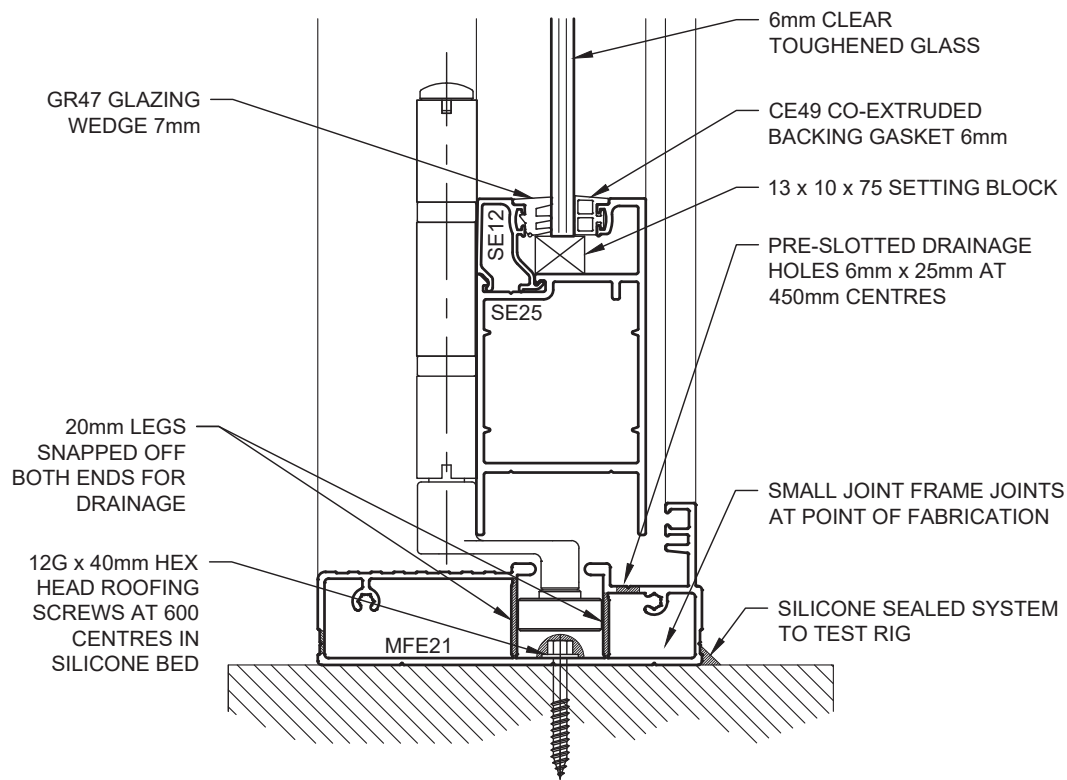
DISCLAIMER:

Please note that the test results shown above reflect specific configurations of a system and are representative only. If a specific high wind load or a different configuration (i.e. changes to frames, transoms, mullions) is required on a project please discuss with Alspec prior to commencement.

4. Test Summary

AS2047 - 2 Left 2 Right Open Out

TEST REPORT:	OT22-112
SYSTEM CONFIGURATION	MFE21 Sill, SE73 Door Stiles, and Angles
TEST SAMPLE SIZE	3.0m high x 3.92m wide
SERVICEABILITY LOAD	+/- 0.8 kPa
ULTIMATE LOAD	+/- 2.01 kPa
WATER PENETRATION	152 Pa
AIR INFILTRATION @ 75Pa	+ 0.11 L/m/s ² - 0.14 L/m/s ²
OPERATING FORCE TEST	
INITIATING MOVEMENT	6.8N
SUSTAINING MOVEMENT	8.8N



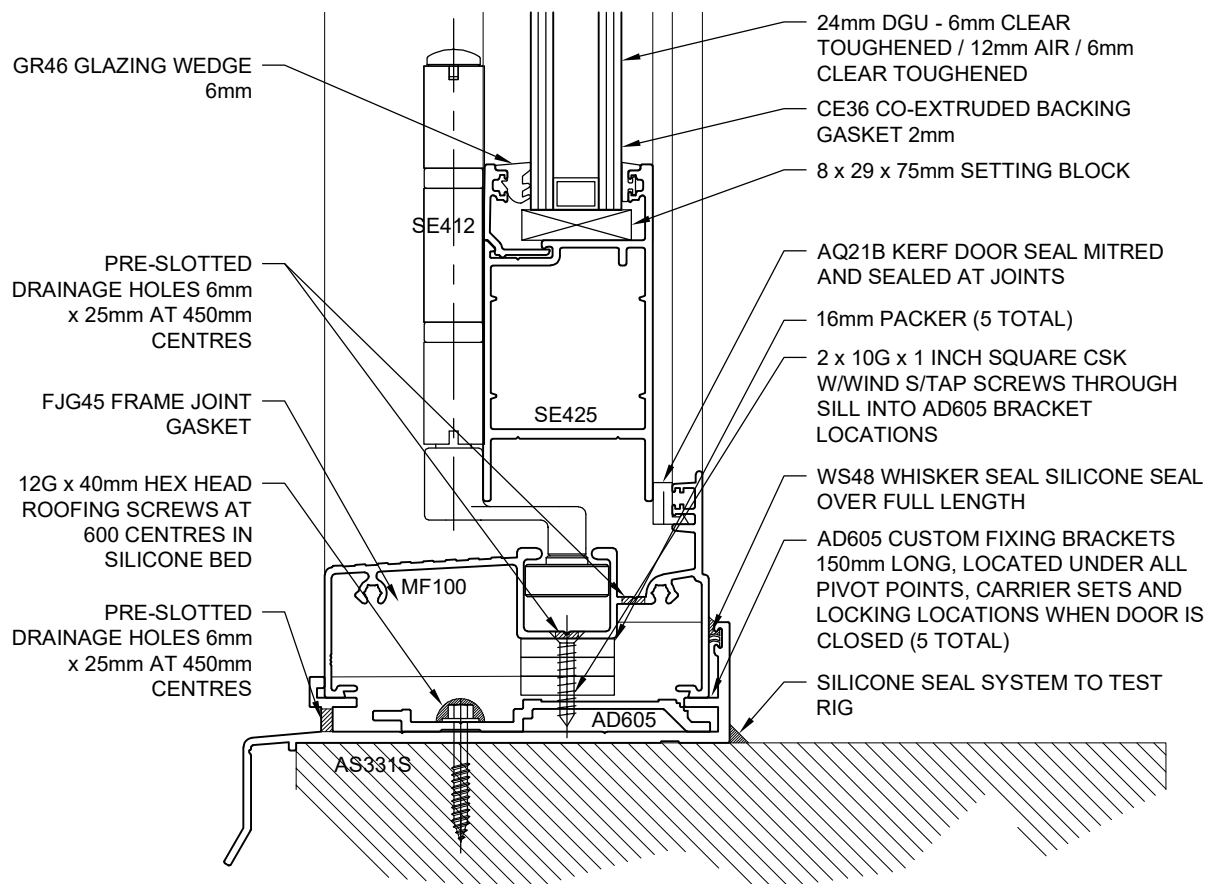
DISCLAIMER:

Please note that the test results shown above reflect specific configurations of a system and are representative only. If a specific high wind load or a different configuration (i.e. changes to frames, transoms, mullions) is required on a project please discuss with Alspec prior to commencement.

4. Test Summary

AS2047 - 4 Left Open Out

TEST REPORT:	OT23-208
SYSTEM CONFIGURATION	MFE100 HP Sill, SE473 Door Stiles, AS331s Sub Sill and Angles
TEST SAMPLE SIZE	3.0m high x 4.583m wide
SERVICEABILITY LOAD	+/- 1.912 kPa
ULTIMATE LOAD	+/- 2.073 kPa
WATER PENETRATION	205 Pa
AIR INFILTRATION @ 75Pa	+ 0.20 L/m/s ² - 1.23 L/m/s ²
OPERATING FORCE TEST	
INITIATING MOVEMENT	12.6N
SUSTAINING MOVEMENT	17.7N



DISCLAIMER:

Please note that the test results shown above reflect specific configurations of a system and are representative only. If a specific high wind load or a different configuration (i.e. changes to frames, transoms, mullions) is required on a project please discuss with Alspec prior to commencement.

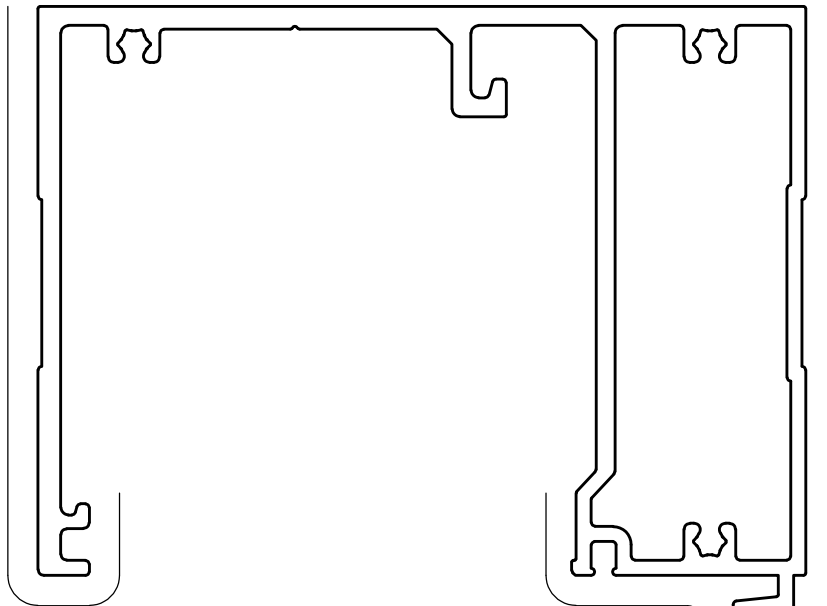
4. Test Summary

Acoustic - AS/NZS ISO 717.1

TEST REPORT	PRODUCT DESCRIPTION	SIZE	GLASS	SEALS	Rw
ATF1984	2 LEFT OPEN OUT	2.4m (H) x 1.9m (W)	6.5mm OPTILAM PHON	AQ21 (Frame & Doors)	31
ATF1985	2 LEFT OPEN OUT	2.4m (H) x 1.9m (W)	8.5mm OPTILAM PHON	AQ21 (Frame & Doors)	32
ATF1986	2 LEFT OPEN OUT	2.4m (H) x 1.9m (W)	10.5mm OPTILAM PHON	AQ21 (Frame & Doors)	33
ATF1987	2 LEFT OPEN OUT	2.4m (H) x 1.9m (W)	10.38mm LAMINATE	AQ21 (Frame & Doors)	31
ATF1988	2 LEFT OPEN OUT	2.4m (H) x 1.9m (W)	6.38mm LAMINATE	AQ21 (Frame & Doors)	29
ATF1989	2 LEFT OPEN OUT	2.4m (H) x 1.9m (W)	6.38mm LAMINATE / 12mm AIR / 6.38mm LAMINATE	AQ21 (Frame & Doors)	34
ATF1990	2 LEFT OPEN OUT	2.4m (H) x 1.9m (W)	10.5mm O'LAM / 8mm AIR / 6.5mmO/LAM IGU	AQ21 (Frame & Doors)	34

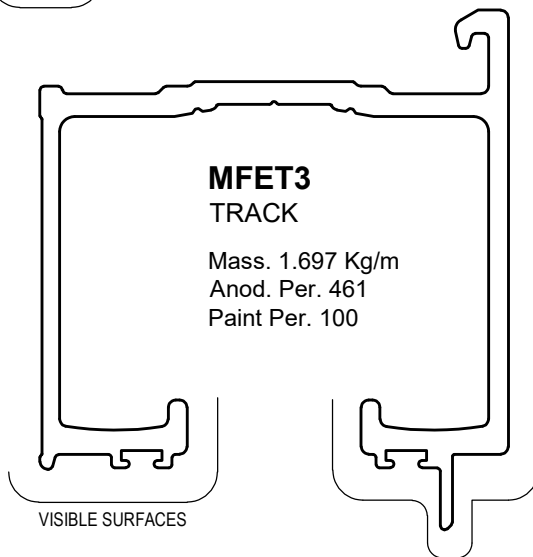
BAL40 - AS 1530.8.1-2007

TEST REPORT	PRODUCT DESCRIPTION	SIZE	GLASS	SEALS	RESULT
FSZ1662A	Bi-Fold Window/Door	800m (H) x 1100m (W)	6mm CLEAR TOUGHENED	GR3FR	BAL 40



MFE1
E2/E3 HEAD

Mass. 2.877 Kg/m
Anod. Per. 649
Paint Per. 273

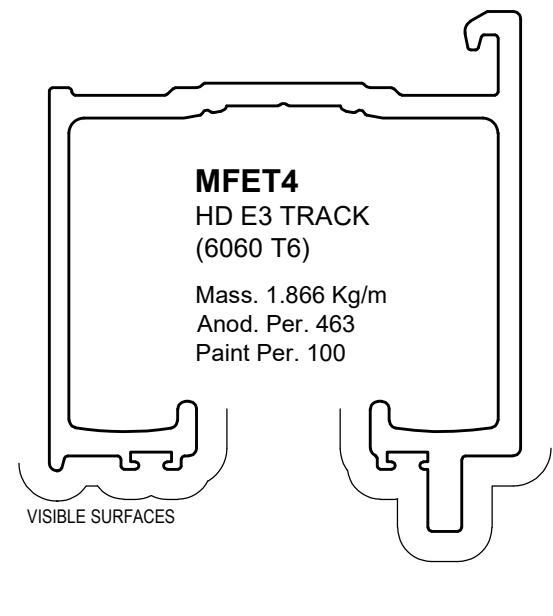
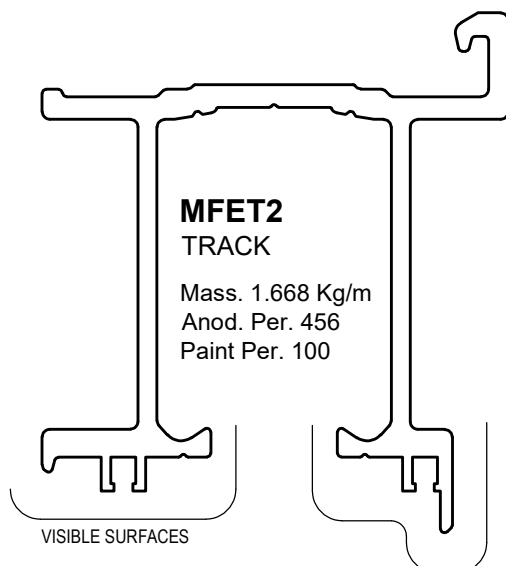
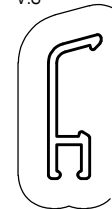


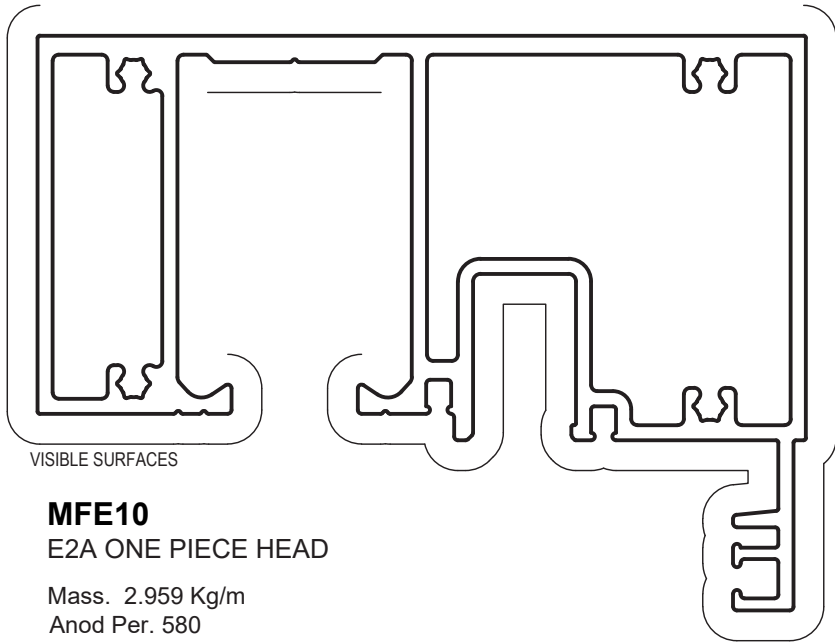
VISIBLE SURFACES

MF75
WEATHERSEAL
SNAP ON COVER

Mass. 0.100 Kg/m
Anod. Per. 100
Paint Per. 100

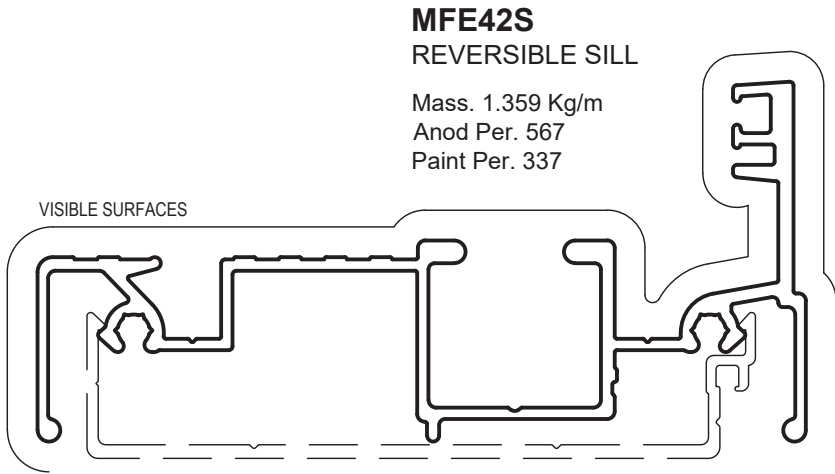
V.S





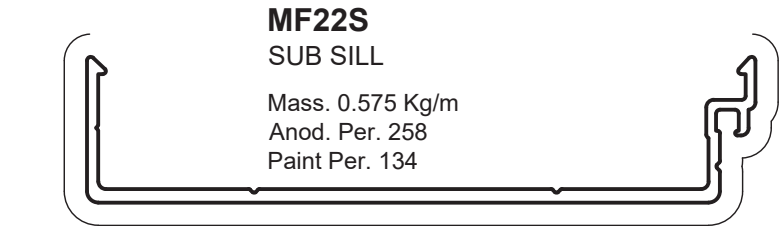
MFE10
E2A ONE PIECE HEAD

Mass. 2.959 Kg/m
Anod Per. 580
Paint Per. 379



MFE42S
REVERSIBLE SILL

Mass. 1.359 Kg/m
Anod Per. 567
Paint Per. 337

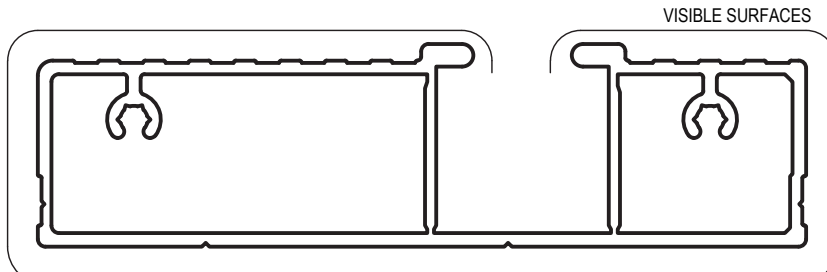


MF22S
SUB SILL

Mass. 0.575 Kg/m
Anod Per. 258
Paint Per. 134

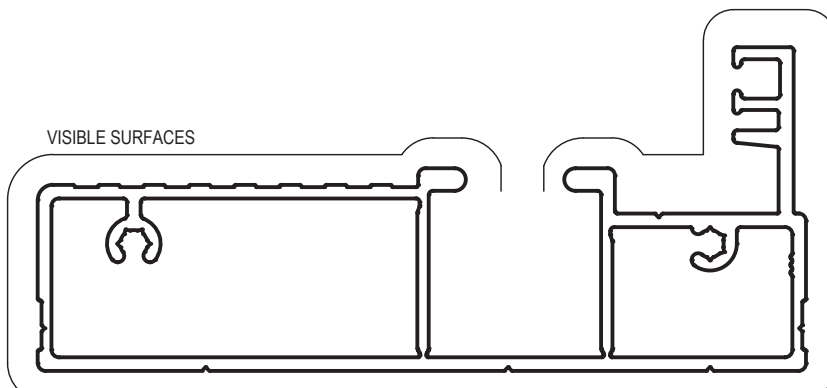
NOTE: MUST BE STOP ENDED
PRIOR TO INSTALLATION

VISIBLE SURFACES



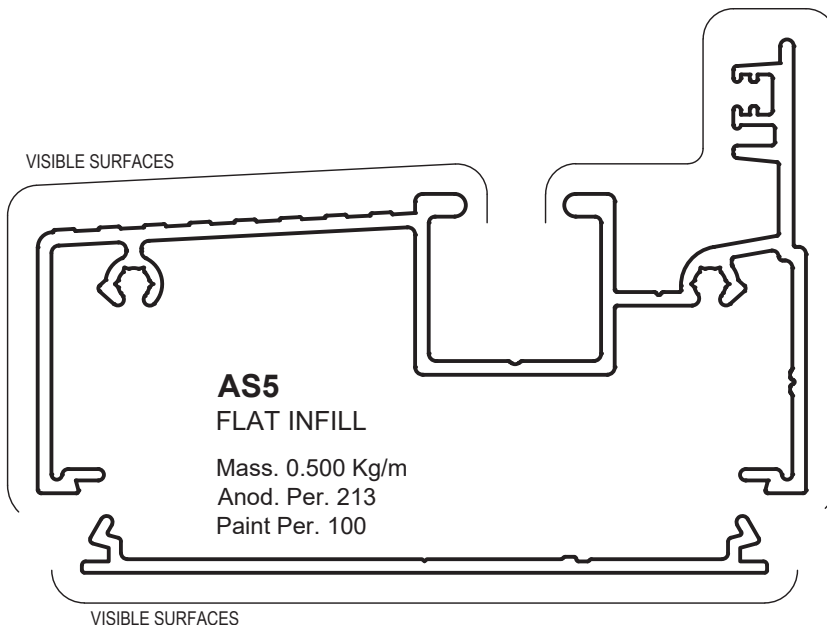
MFE23
PLAIN SILL

Mass. 1.449 Kg/m
Anod. Per. 328
Paint Per. 149



MFE21
REVERSIBLE SILL

Mass. 1.609 Kg/m
Anod. Per. 410
Paint Per. 230

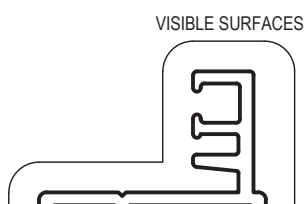


AS5
FLAT INFILL

Mass. 0.500 Kg/m
Anod. Per. 213
Paint Per. 100

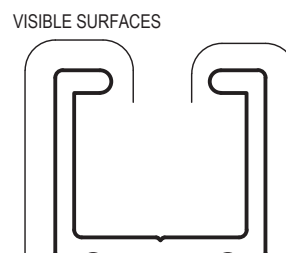
MF100
HIGH PERFORMANCE
SILL

Mass. 1.560 Kg/m
Anod Per. 619
Paint Per. 272



MFE19
DOOR ADAPTOR

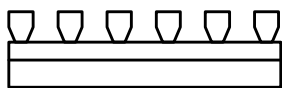
Mass. 0.313 Kg/m
Anod. Per. 134
Paint Per. 100



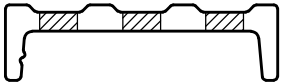
MFE20D
DEEP SILL TRACK

Mass. 0.561 Kg/m
Anod Per. 165
Paint Per. 137

5. Extrusions



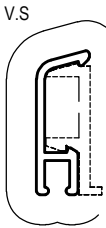
PRG018
36mm SS STORM GRATE
1000mm



ASGR8
SLOTTED GRATE
THRESHOLD

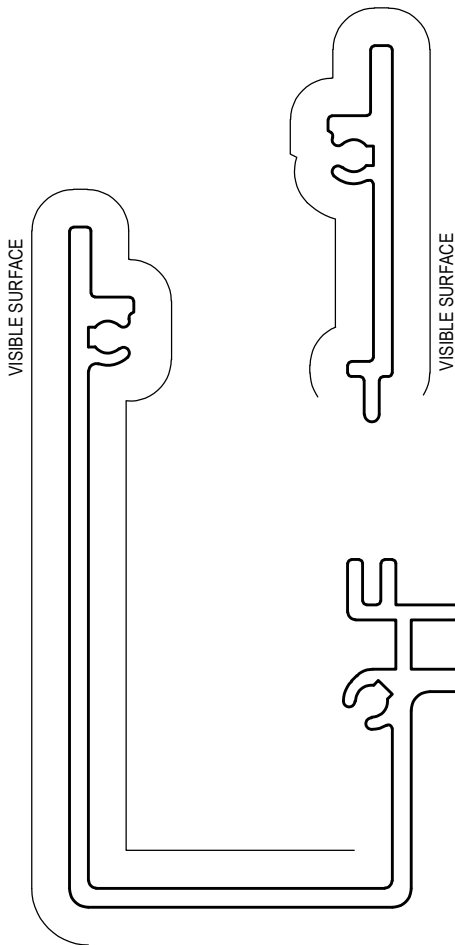
Mass. 0.364 Kg/m
Anod. Per. 105
Paint Per. 100

PRE PUNCHED AND
CLEAR ANODISED



MF75
WEATHERSEAL
SNAP ON COVER

Mass. 0.100 Kg/m
Anod. Per. 100
Paint Per. 100



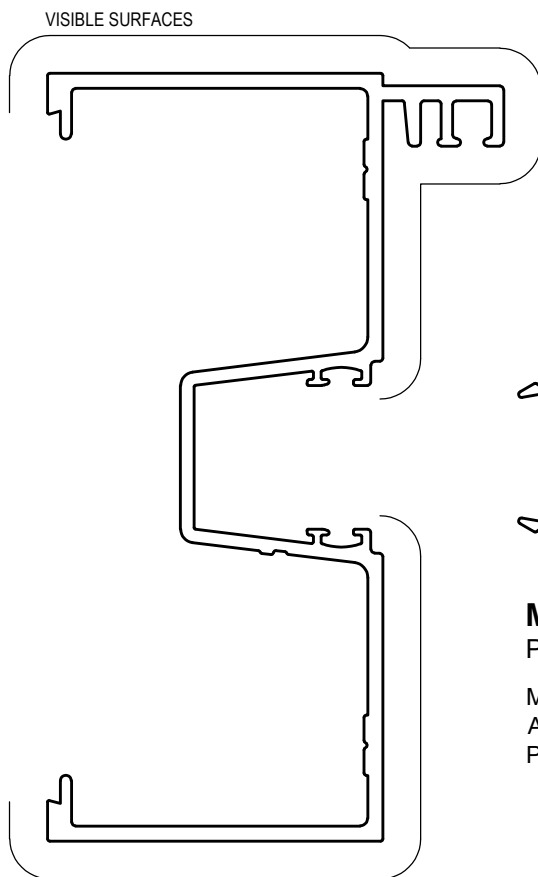
AD802
FLUSH GRATE
SILL ADAPTOR

Mass. 0.437 kg/m
Anod Per. 132
Paint Per. 115

AD808
100mm FLUSH
GRATE SILL

Mass. 2.578 kg/m
Anod Per. 740
Paint Per. 293

PLEASE NOTE: AD808 IS NOT PRESLOTTED.
REFER SECTION 10 FOR SLOTTING DETAILS.

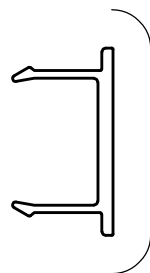


MFE55

BI-FOLD JAMB
WITH POCKET

Mass. 1.534 Kg/m
Anod Per. 586
Paint Per. 245

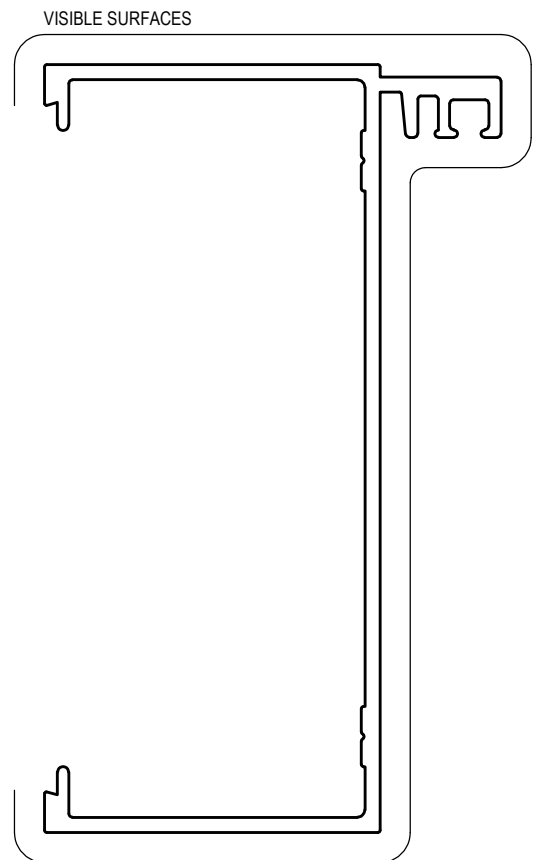
$I_{xx} = 807.30 \times 10^3 \text{ mm}^4$



V.S.

ME8
POCKET FILLER

Mass. 0.181 Kg/m
Anod. Per. 100
Paint Per. 100

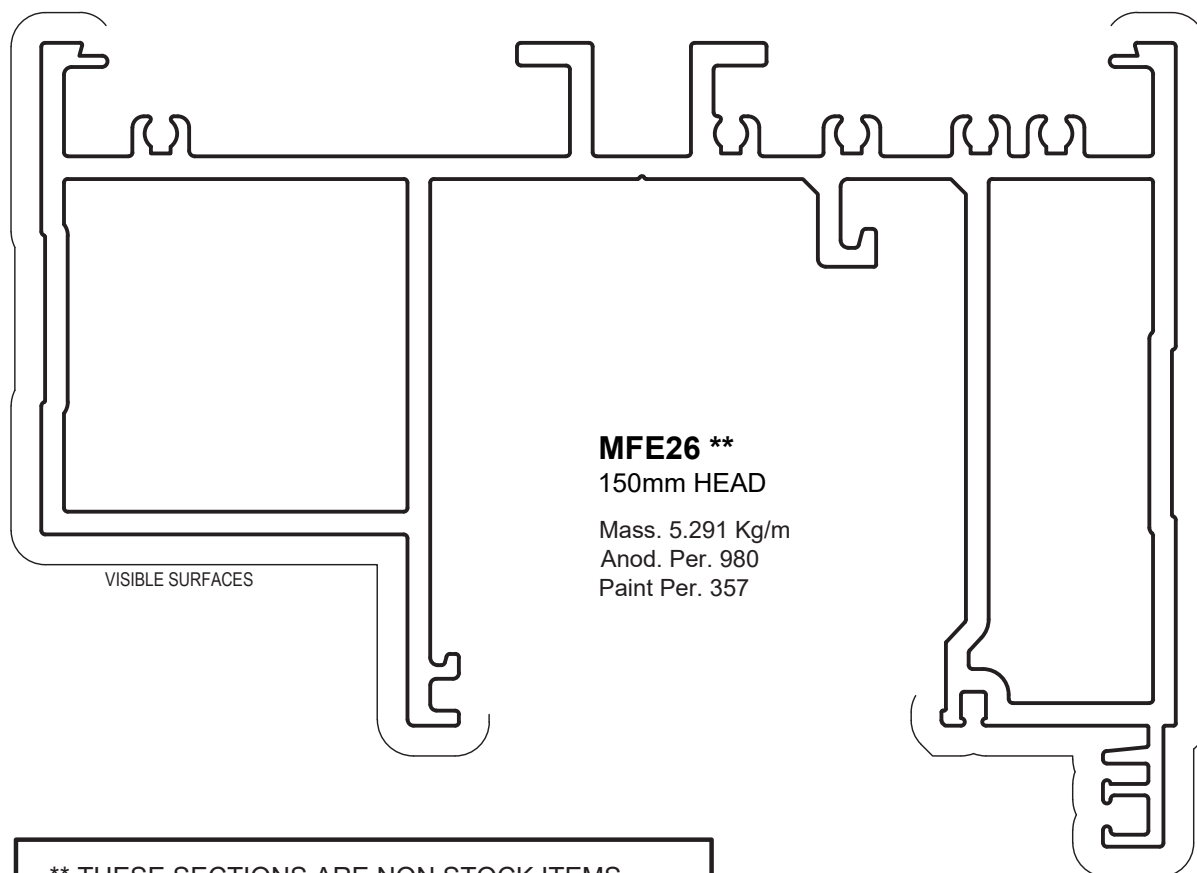


MFE25

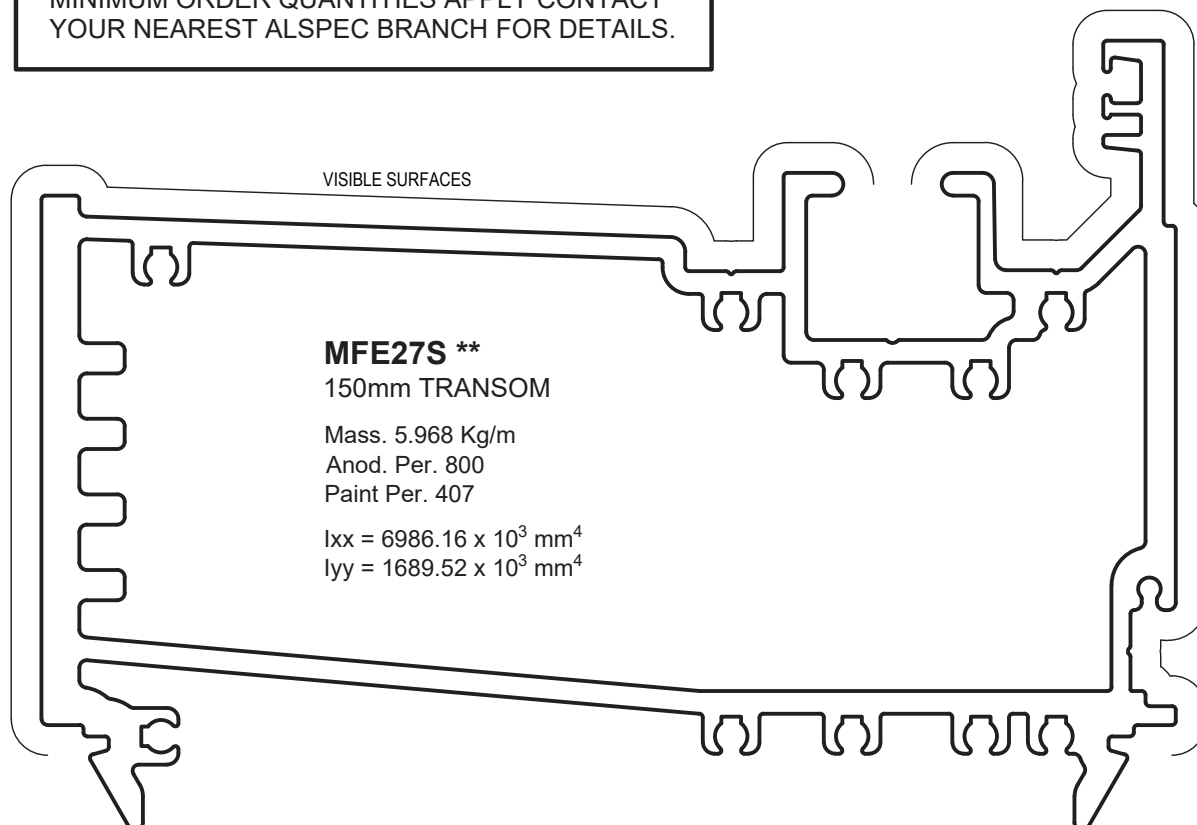
MULTI DOOR JAMB

Mass. 1.307 Kg/m
Anod. Per. 470
Paint Per. 268

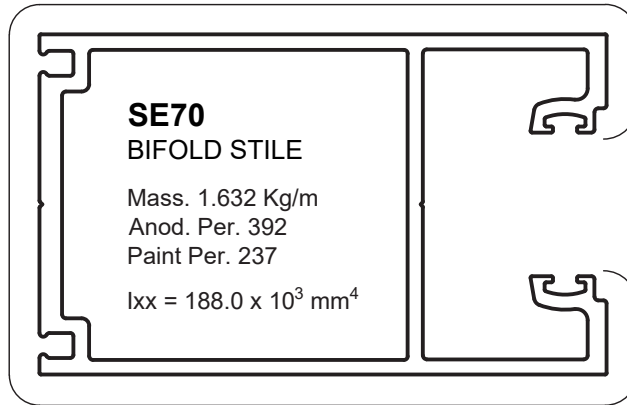
$I_{xx} = 802.00 \times 10^3 \text{ mm}^4$



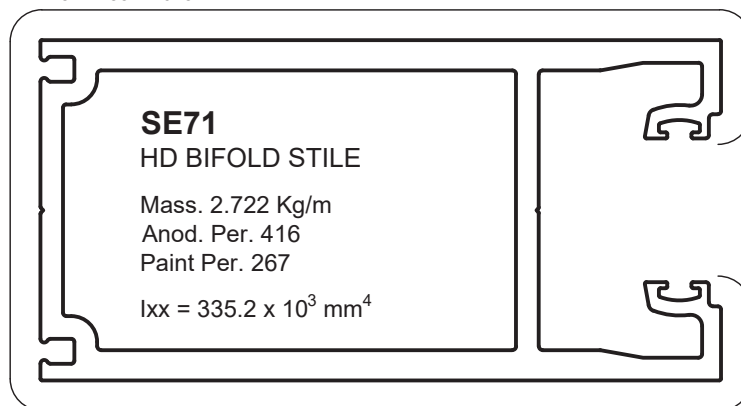
** THESE SECTIONS ARE NON STOCK ITEMS
MINIMUM ORDER QUANTITIES APPLY CONTACT
YOUR NEAREST ALSPEC BRANCH FOR DETAILS.



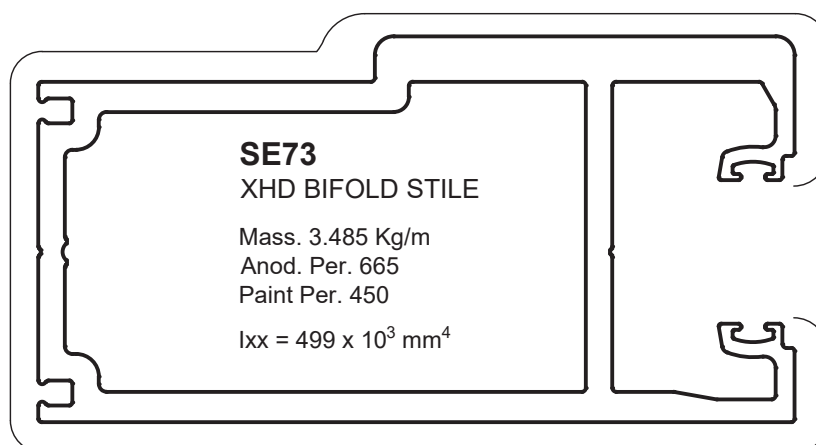
VISIBLE SURFACES



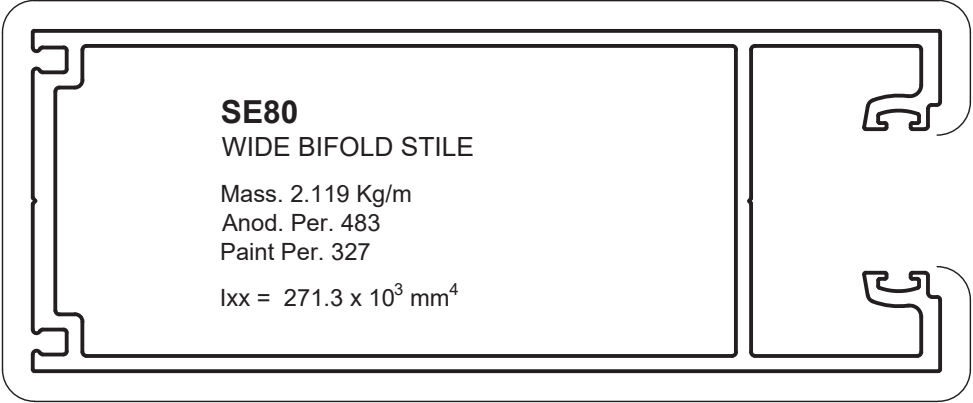
VISIBLE SURFACES



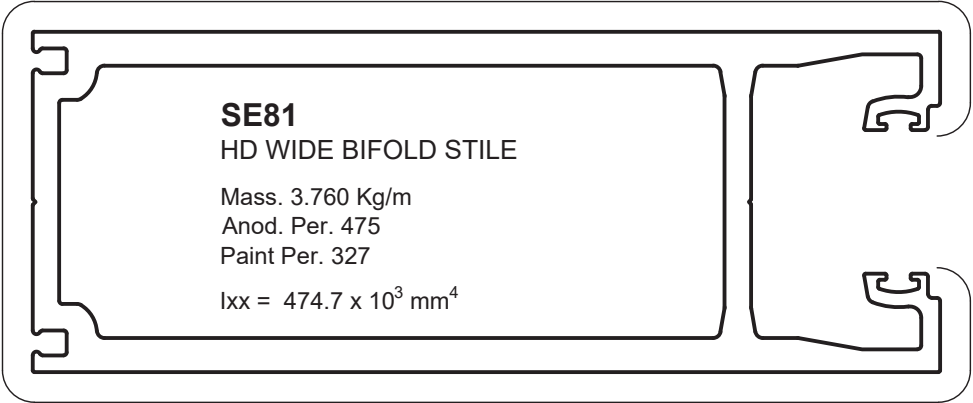
VISIBLE SURFACES



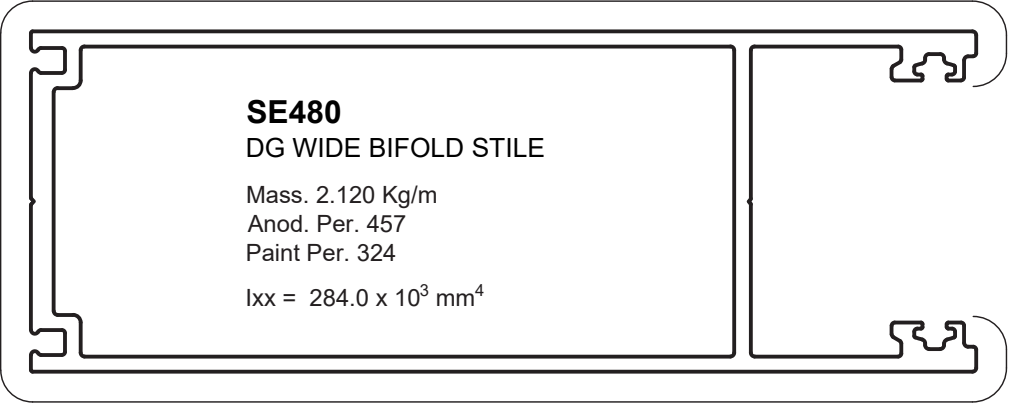
VISIBLE SURFACES



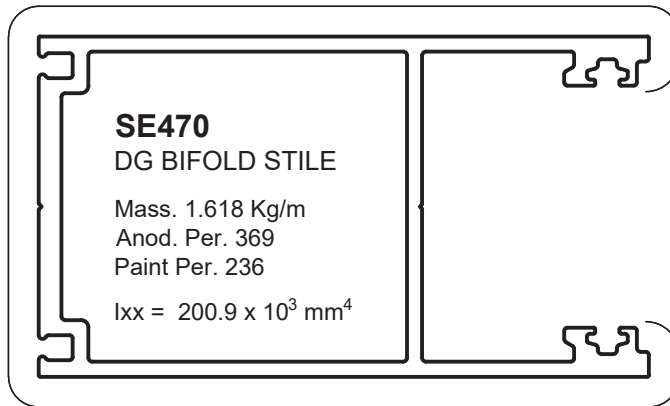
VISIBLE SURFACES



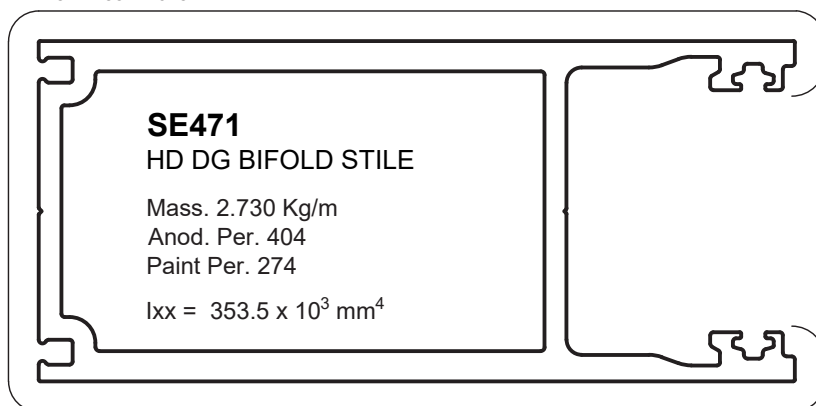
VISIBLE SURFACES



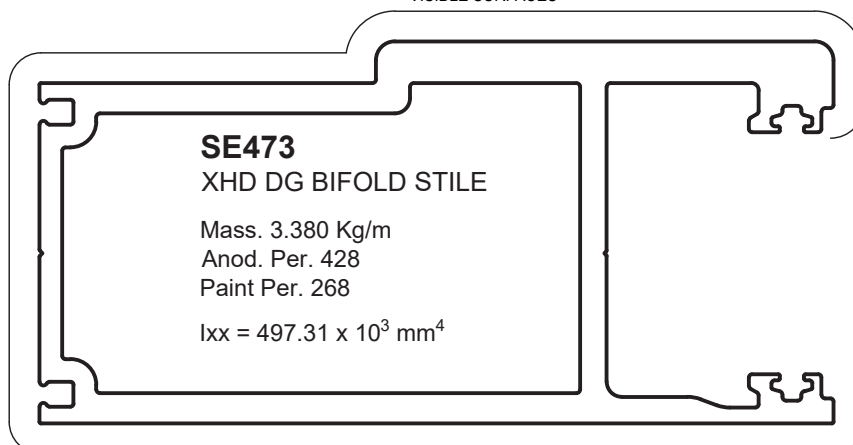
VISIBLE SURFACES



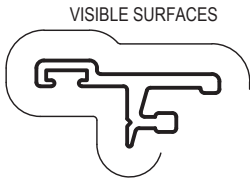
VISIBLE SURFACES



VISIBLE SURFACES

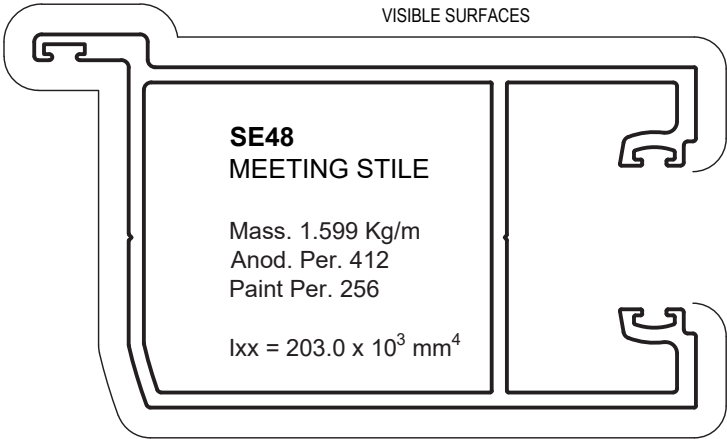


5. Extrusions



AD29
ADAPTOR

Mass. 0.189 Kg/m
Anod. Per. 100
Paint Per. 100



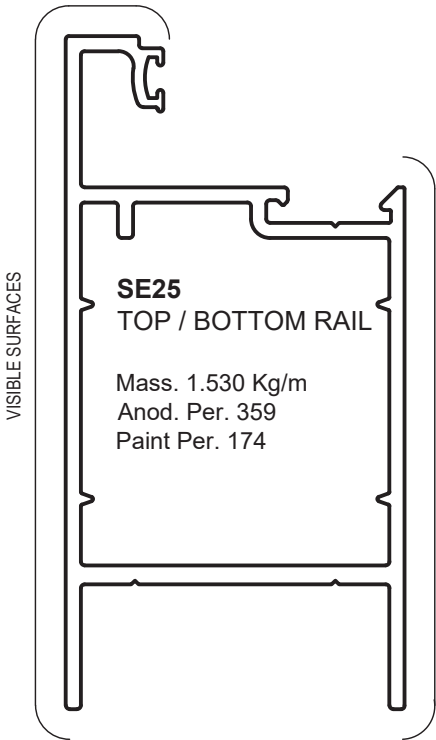
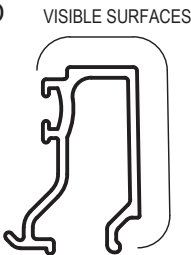
SE48
MEETING STILE

Mass. 1.599 Kg/m
Anod. Per. 412
Paint Per. 256

 $I_{xx} = 203.0 \times 10^3 \text{ mm}^4$

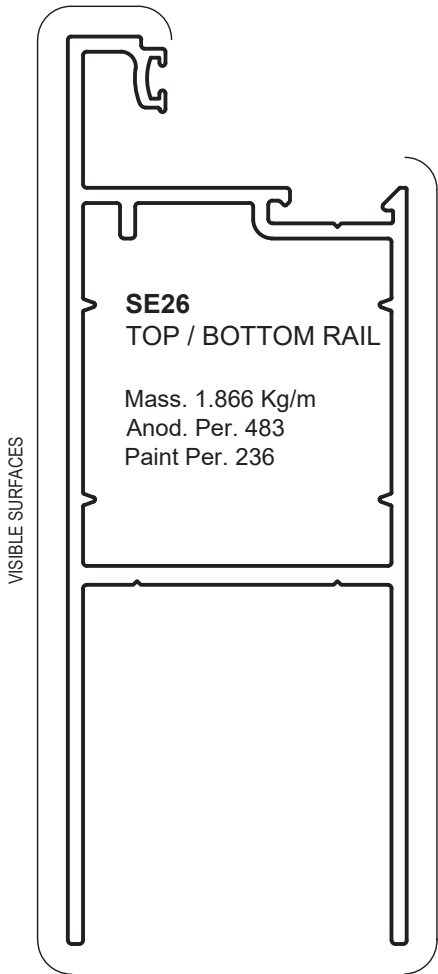
SE12
GLAZING BEAD

Mass. 0.248 Kg/m
Anod. Per. 144
Paint Per. 100



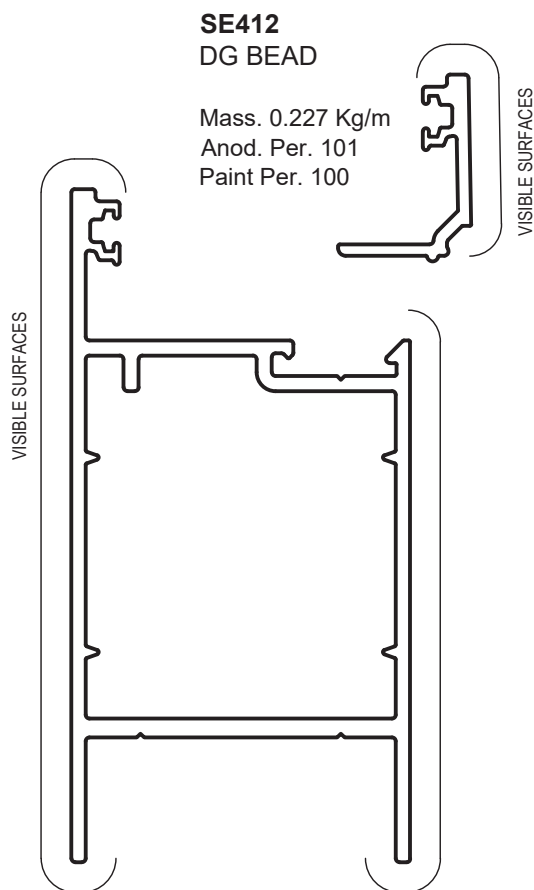
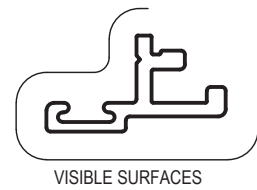
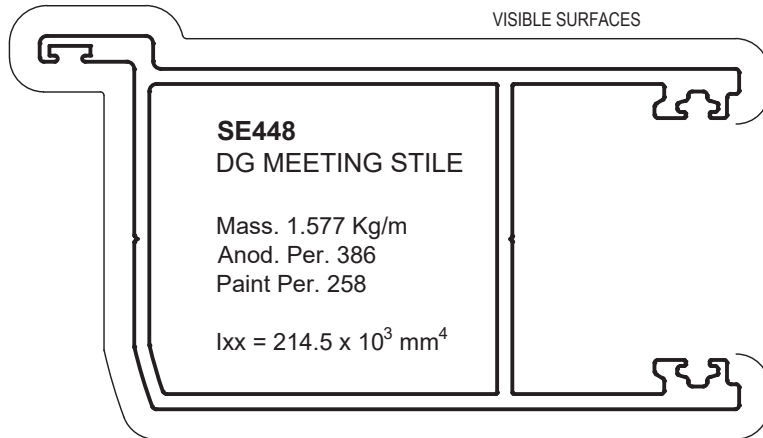
SE25
TOP / BOTTOM RAIL

Mass. 1.530 Kg/m
Anod. Per. 359
Paint Per. 174



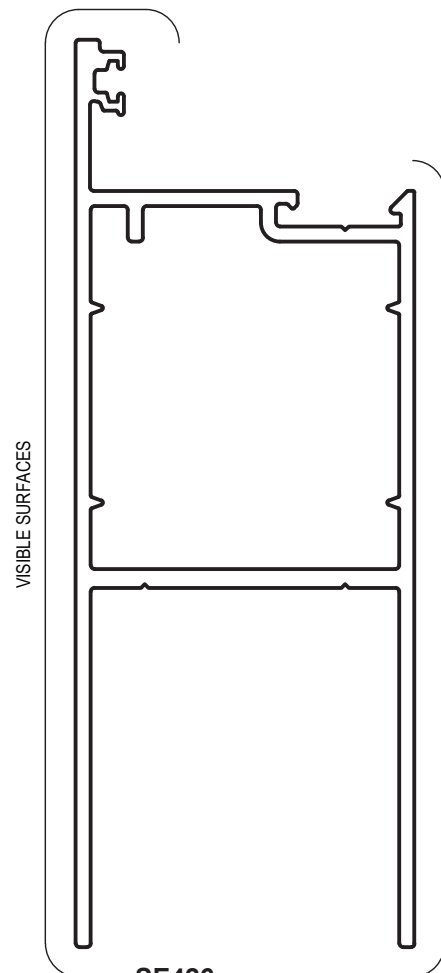
SE26
TOP / BOTTOM RAIL

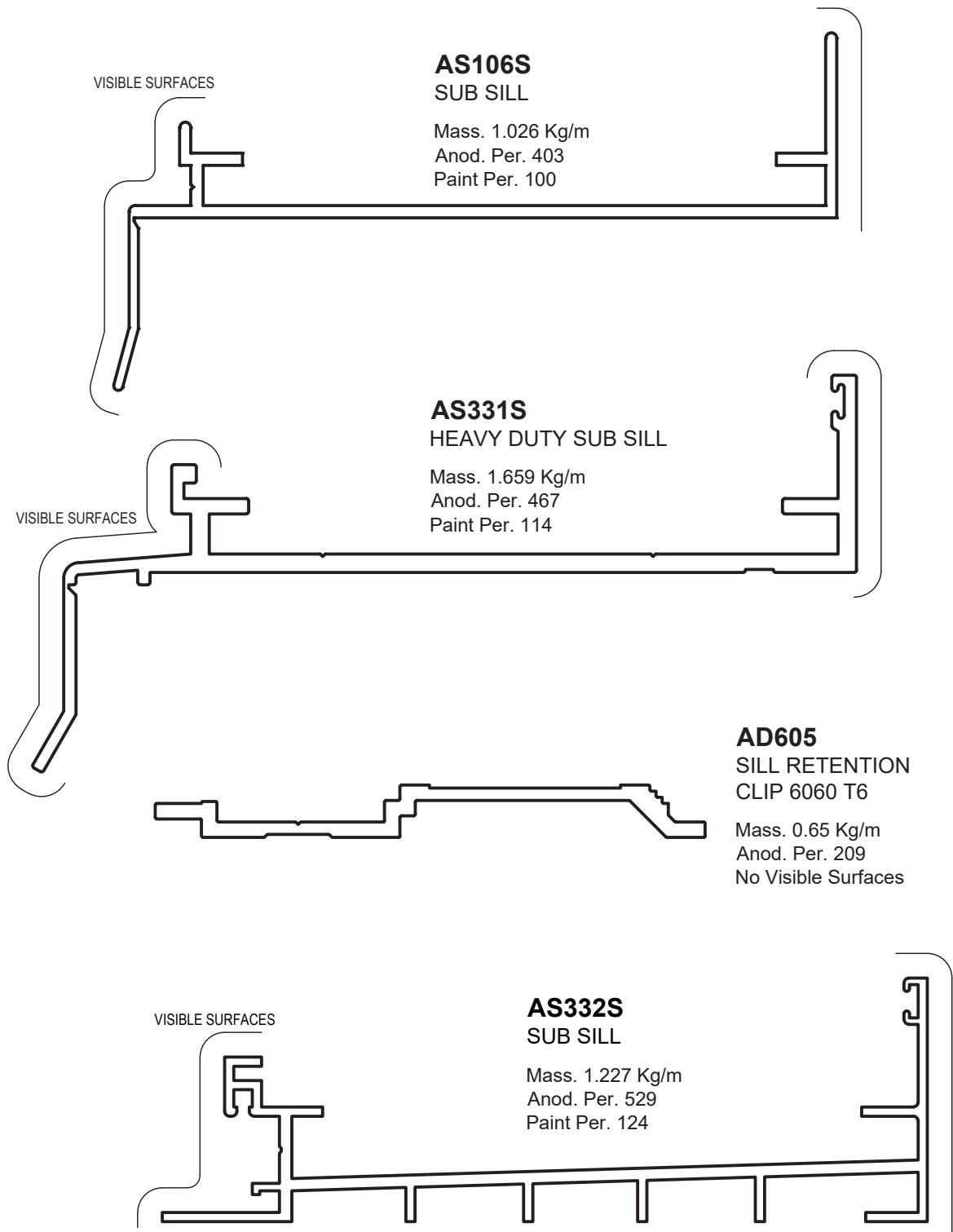
Mass. 1.866 Kg/m
Anod. Per. 483
Paint Per. 236



SE425
DG TOP / BOTTOM RAIL

Mass. 1.487 Kg/m
Anod. Per. 337
Paint Per. 168





PLEASE NOTE: FOR OTHER SUB SILL OPTIONS
REFER TO WALL CHART OR TECHNICAL MANUAL

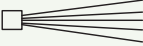
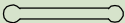
Glazing Wedges

IMAGE	TO SUIT GAP	MATERIAL	PART #	DESCRIPTION
	2mm	PVC	1376132	GR32 GLAZING WEDGE (2mm GAP) x 200m ROLL
	3mm	PVC	1313055	GR43 GLAZING WEDGE (BROWN) (3mm GAP) x 200m ROLL
		S/PRENE	1313063	GR43S GLAZING WEDGE (BROWN) (3mm GAP) S/PRENE x 200m ROLL
	4mm	PVC	1313056	GR44 GLAZING WEDGE (WHITE) (4mm GAP) x 200m ROLL
		S/PRENE	1313064	GR44S GLAZING WEDGE (WHITE) (4mm GAP) S/PRENE x 200m ROLL
	5mm	PVC	1313057	GR45 GLAZING WEDGE (BLUE) (5mm GAP) x 150m ROLL
		PVC	1313065	GR45S GLAZING WEDGE (BLUE) (5mm GAP) S/PRENE x 150m ROLL
	6mm	PVC	1313058	GR46 GLAZING WEDGE (YELLOW) (6mm GAP) x 150m ROLL
		PVC	1313066	GR46S GLAZING WEDGE (YELLOW) (6mm GAP) S/PRENE x 150m ROLL
	7mm	PVC	1313059	GR47 GLAZING WEDGE (RED) (7mm GAP) x 150m ROLL
		S/PRENE	1313062	GR47S GLAZING WEDGE (RED) (7mm GAP) S/PRENE x 150m ROLL
	8mm	PVC	1313060	GR48 GLAZING WEDGE (ORANGE) (8mm GAP) x 150m ROLL
		S/PRENE	1313067	GR48S GLAZING WEDGE (ORANGE) (8mm GAP) S/PRENE x 150m ROLL
	9mm	PVC	1313076	GR50 GLAZING WEDGE (GREEN) (9mm GAP) x 100m ROLL

Backing Gaskets

IMAGE	TO SUIT GAP	MATERIAL	PART #	DESCRIPTION
	2mm	PVC	1313079	CE36 CO-EXT BACKING GASKET (2mm GAP) x 100m ROLL
		S/PRENE	1313080	CE36S CO-EXT BACKING GASKET (2mm GAP) S/PRENE x 100m ROLL
	4mm	PVC	1313081	CE37 CO-EXT BACKING GASKET (4mm GAP) x 100m ROLL
		S/PRENE	1313082	CE37S CO-EXT BACKING GASKET (4mm GAP) S/PRENE x 100m ROLL
	6mm	PVC	1313083	CE49 CO-EXT BACKING GASKET (6mm GAP) x 100m ROLL
		S/PRENE	1313084	CE49S CO-EXT BACKING GASKET (6mm GAP) S/PRENE x 100m ROLL
	8.5mm	S/PRENE	1313078	CE52S CO-EXT BACKING GASKET (8.5mm GAP) x 100m ROLL

Seals

IMAGE	PART #	FINISH	DESCRIPTION
	1377602	BLACK (034) BROWN (011)	AQ21B KERF SEAL x 1m
	1377606		AQ21B KERF SEAL x 250m
	1376324	BLACK (034)	CE23 CO-EXT WEATHER SEAL x 1m
	1376323		CE23 CO-EXT WEATHER SEAL x 200m ROLL
	1377441	BLACK (034)	SSPS13BHD MF14 SEAL x 500m (+300Pa WATER)
	1377298	BLACK (034)	SKIRTING SEAL 4813B x 1m
	1377414	BLACK (034)	PS13 13mm FRINGE PILE x 100m
	1377415	BLACK (034)	PS16 16mm FRINGE PILE x 100m
	1377313	BLACK (034)	PBF48-850-2B FINSEAL T-SLOT x 300m NO STOCK
	1377086	BLACK (034)	PB69-675-4P WEATHERSEAL x 1m PS10
	1377083		PB69-675-4P WEATHERSEAL x 350m PS10
	1376344	BLACK (034)	CE12 CO-EXT BAFFLE (16.5mm HEIGHT) x 1m
	1376342		CE12 CO-EXT BAFFLE (16.5mm HEIGHT) x 250m ROLL
	1376848	BLACK (034)	WS48 PVC SEAL x 500m
	1376847		WS48 PVC SEAL x 1m

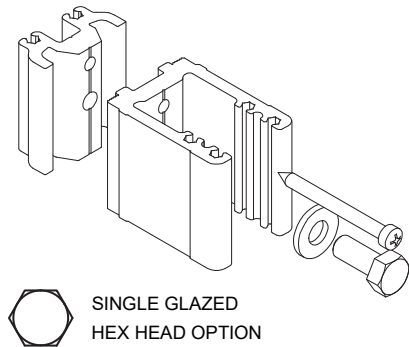
Fasteners

SCREWS			
PART #	HEAD	DESCRIPTION	LOCATION
1382013	PHILLIPS #2	8g x 1/2 (13mm) SS PHIL CSK S/TAP SCREW x 200	FLUSH BOLT GUIDE
1382042	PHILLIPS #2	8g x 1/2 (13mm) SS PHILLIPS PAN S/TAP SCREW x 1000	WEATHER STRIP / MFA75 END CAP
1382675	SQUARE #1	8g x 5/8 (16mm) 304SS SQ #1 PAN S/TAP SCREW x 1000	HEAD
1382643	SQUARE #2	10g x 1/2 (13mm) 304SS SQ #2 PAN S/TAP SCREW x 1000	SUB SILL
1382644	SQUARE #2	10g x 1 (25mm) 304SS SQ #2 PAN S/TAP SCREW x 1000	SILL / SPIGOT
1382646	SQUARE #2	10g x 1 1/2 (38mm) 304SS SQ #2 PAN S/TAP SCREW x 1000	JAMB

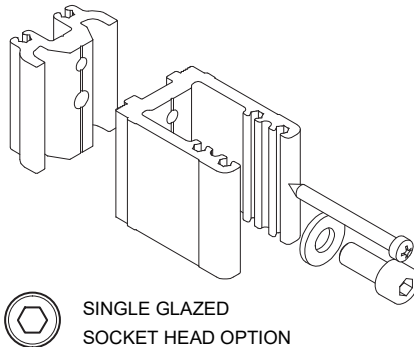
Frame Joint Gaskets

PART #	DESCRIPTION	FINISH
1385512	FJG45 FRAME JOINT GASKET PVC FOAM TAPE 45 x 1.6mm 45.7m	BLACK (034)
		GREY (036)

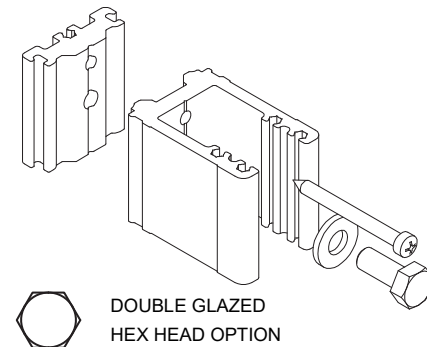
Accessories



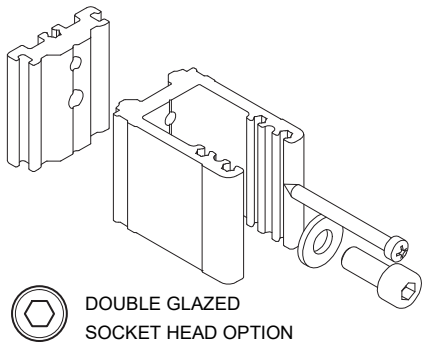
SE1000H 45mm SG DOOR SPIGOT - HEX	
PART	1378150
FINISH	NOT SPECIFIED (099)
QTY	4 SPIGOTS PER KIT



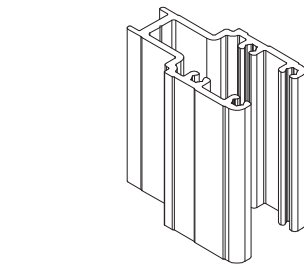
SE1000S 45mm SG DOOR SPIGOT - SHCS	
PART	1378151
FINISH	NOT SPECIFIED (099)
QTY	4 SPIGOTS PER KIT



SE2000H 45mm DG DOOR SPIGOT - HEX	
PART	1378152
FINISH	NOT SPECIFIED (099)
QTY	4 SPIGOTS PER KIT

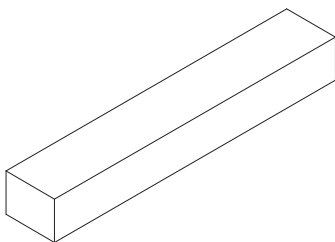


SE2000S 45mm DG DOOR SPIGOT - SHCS	
PART	1378153
FINISH	NOT SPECIFIED (099)
QTY	4 SPIGOTS PER KIT

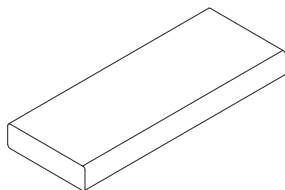


Suits both single and double glazed doors

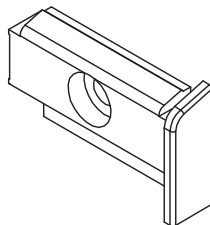
SEH004 MID RAIL SPIGOT 66mm LONG	
PART	1378733
FINISH	NOT SPECIFIED (099)
QTY	EACH



SETTING BLOCK 10 x 13 x 75mm BAG OF 50	
PART	1376762
FINISH	BLACK (034)
QTY	BAG OF 50

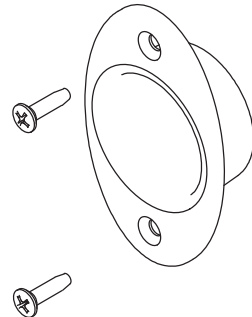


SETTING BLOCK 8 x 29 x 75mm x BAG OF 50	
PART	1376771
FINISH	BLACK (034)
QTY	BAG OF 50



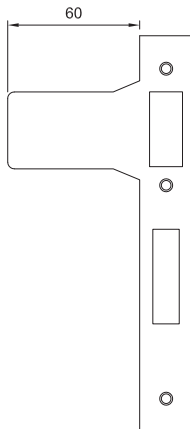
Note: Mates with MF75 on pg 5.4

MFA75 END CAP COMPONENT	
PART	1378995
FINISH	BLACK (034)
QTY	EACH



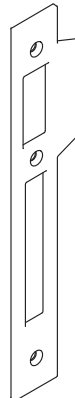
P84096SC VERONA B/FOLD THUMBGP	
PART	1345240
FINISH	BLACK (034) SATIN CHROME (094) PEARL WHT GLOSS (010)
QTY	EACH

Accessories



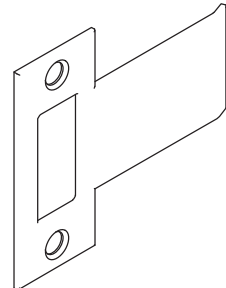
OPTIMUM 60mm DOUBLE SIDED STRIKE OPS003SS

PART	1304657
FINISH	SATIN S/LESS STEEL (0A6)
QTY	EACH



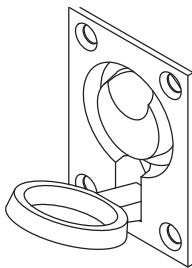
P33120 STRIKER WITH TONGUE 70mm

PART	1345318
FINISH	NOT SPECIFIED (099)
QTY	EACH



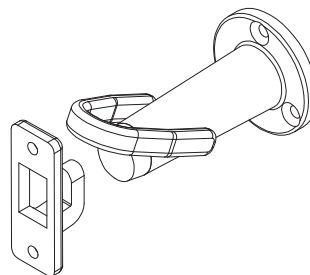
3782-STK74SS LONG LIP STRIKE 74mm LIP

PART	1370439
FINISH	SATIN S/LESS STEEL (0A6)
QTY	EACH



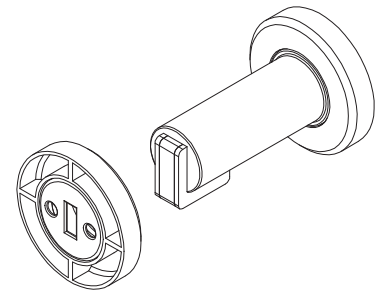
FINGER PULL FOR HAWKESBURY S.S.

PART	1378960
FINISH	SATIN S/LESS STEEL (0A6) SATIN CHROME (094)
QTY	EACH



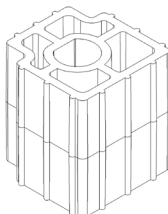
HAWK HOLD OPEN SKIRT MOUNT DOOR STOP

PART	1378963
FINISH	BLACK (034) SATIN CHROME (094)
QTY	EACH



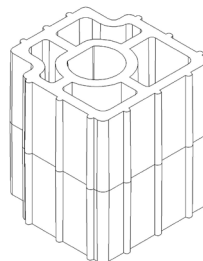
378982 MAGNETIC DOOR HOLDER

PART	1378982
FINISH	NATURAL (0F8)
QTY	EACH



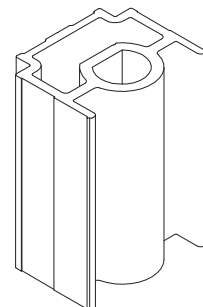
SEH007 FLUSHBOLT GUIDE 40mm

PART	1376242
FINISH	BLACK (034)
QTY	EACH



SEH010 XHD FLUSHBOLT GUIDE 40mm

PART	1376248
FINISH	BLACK (034)
QTY	EACH



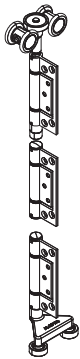
Note: Used with MFET4

ALUMINIUM HD FLUSH BOLT GUIDE

PART	1371370
FINISH	MILL (001)
QTY	EACH

6. Hardware & Components

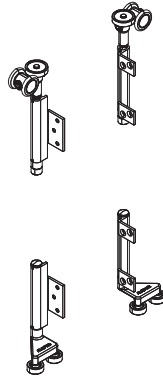
E2A Hardware



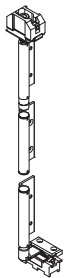
E2ACICS CONC INTER CARRIER SET		
PART / FINISH	1378622	SATIN S/ LESS STEEL (0A6)
	1379586	BLACK (034)
	1300044	WHITE (015)
QTY	SET	



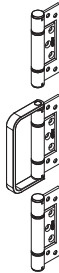
E2ACLCS CONC LEFT CARRIER SET		
PART / FINISH	1378620	SATIN S/ LESS STEEL (0A6)
	1379584	BLACK (034)
	1379583	WHITE (015)
QTY	SET	



E2ACMCS CONC MEET CARRIER SET		
PART / FINISH	1378623	SATIN S/ LESS STEEL (0A6)
	1379588	BLACK (034)
	1379587	WHITE (015)
QTY	SET	



E2ACPS CONCEALED PIVOT SET		
PART / FINISH	1378624	SATIN S/ LESS STEEL (0A6)
	1379589	BLACK (034)
	1300045	WHITE (015)
QTY	SET	



E2AHS HINGE SET WITH HANDLE		
PART / FINISH	1378625	SATIN S/ LESS STEEL (0A6)
	1379591	BLACK (034)
	1379590	WHITE (015)
QTY	SET	



E2AHHS HALF OFFSET HINGE SET/ HDL		
PART / FINISH	1378627	SATIN S/ LESS STEEL (0A6)
	1379594	BLACK (034)
	1300046	WHITE (015)
QTY	SET	



E2ACRCS CONC RIGHT CARRIER SET		
PART / FINISH	1378621	SATIN S/ LESS STEEL (0A6)
	1379585	BLACK (034)
	1300043	WHITE (015)
QTY	SET	

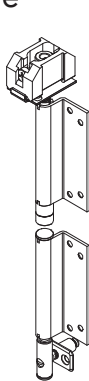


E2AHNHS HINGE SET WITH NO HANDLE		
PART / FINISH	1378626	SATIN S/ LESS STEEL (0A6)
	1379593	BLACK (034)
	1379592	WHITE (015)
QTY	SET	

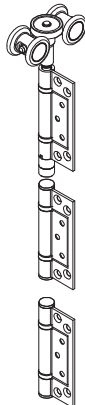


E2AHNHS HALF OFFSET HINGE SET/NOHDL		
PART / FINISH	1378628	SATIN S/ LESS STEEL (0A6)
	1379596	BLACK (034)
	1379595	WHITE (015)
QTY	SET	

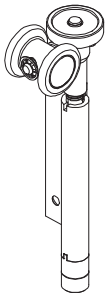
E2i Hardware



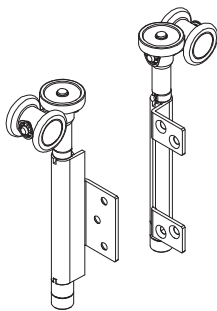
E2BPPSS WALL MOUNT PIVOT SET S/S	
PART	1378632
FINISH	SATIN S/LESS STEEL (0A6)
QTY	EACH



E2BPICSS INTER CARRIER SET	
PART	1378638
FINISH	SATIN S/LESS STEEL (0A6)
QTY	EACH



E2BPECSS END CARRIER SET	
PART	1378639
FINISH	SATIN S/LESS STEEL (0A6)
QTY	EACH



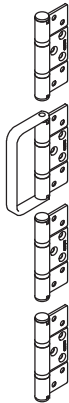
E2BPMCSS MEETING CARRIER SET	
PART	1378648
FINISH	SATIN S/LESS STEEL (0A6)
QTY	SET

6. Hardware & Components

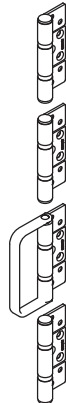
E3A Hardware



E3ACPS CONC PIVOT SET		
PART / FINISH	1378608	SATIN S/ LESS STEEL (0A6)
	1379374	BLACK (034)
QTY	SET	



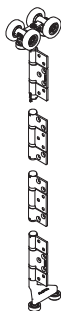
E3AHS HINGE SET WITH HDL (4HINGE)		
PART / FINISH	1378611	SATIN S/ LESS STEEL (0A6)
	1379373	BLACK (034)
QTY	SET	



E3AHHS HALF OFFSET HINGE/ HDL(4H)		
PART	1378602	SATIN S/ LESS STEEL (0A6)
FINISH	1379368	BLACK (034)
QTY	SET	



E3ACRCS CONC RIGHT CARRIER SET		
PART / FINISH	1378604	SATIN S/ LESS STEEL (0A6)
	1379372	BLACK (034)
QTY	SET	



E3ACICS4 CONC INTER CARR (4HINGE)		
PART / FINISH	1378606	SATIN S/ LESS STEEL (0A6)
	1379246	BLACK (034)
QTY	SET	



E3ACLCS CONC LEFT CARRIER SET		
PART / FINISH	1378603	SATIN S/ LESS STEEL (0A6)
	1379369	BLACK (034)
QTY	SET	

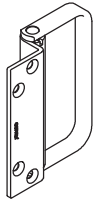


E3AHNHS HINGE SET NO HDL (4HINGE)		
PART / FINISH	1378612	SATIN S/ LESS STEEL (0A6)
	1379582	BLACK (034)
QTY	SET	



E3AHHNHS HALF OFF HING/NO HDL (4)		
PART / FINISH	1378605	SATIN S/ LESS STEEL (0A6)
	1389963	BLACK (034)
QTY	SET	

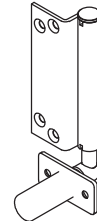
E3A Hardware



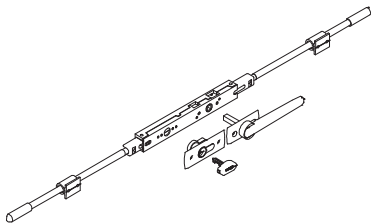
E3AEH EXTERNAL HANDLE		
PART / FINISH	1378900	SATIN S/ LESS STEEL (0A6)
	1379598	BLACK (034)
QTY	EACH	



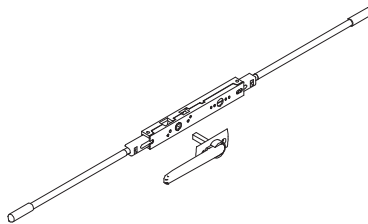
E22EH EXTERNAL HANDLE		
PART / FINISH	1378890	SATIN S/ LESS STEEL (0A6)
	1378504	BLACK (034)
	1379597	WHITE (015)
QTY	EACH	



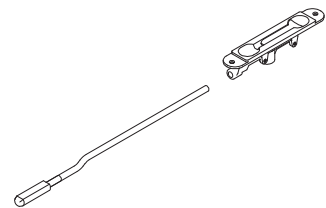
E22WPS WALL PIVOT SET S/S		
PART / FINISH	1378816	SATIN S/ LESS STEEL (0A6)
	1378817	BLACK (034)
QTY	EACH	



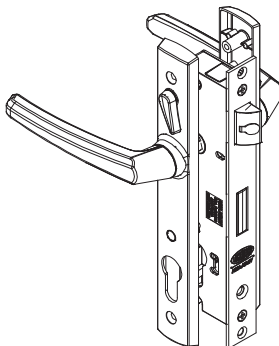
KILLARA TWINBOLT LOCKING INC 2 RODS 1x1m 1x1.3m STD TIPS	
PART	1344004
FINISH	BLACK (034) PEARL WHITE (010) SATIN CHROME (094)
QTY	EACH



KILLARA TWIN BOLT NONLOCK 1 x 1m 1 x 1.3m RODS STD TIPS		
PART / FINISH	1344059	BLACK (034)
	1344060	SPECIAL COLOUR (SPEC)
QTY	EACH	



FLUSH BOLT OFFSET 300mm INC ROD GUIDES HAWK	
PART	1345050 (P3530D) 1345052 (P3531D)
FINISH	BLACK (034) SATIN CHROME (094)
QTY	EACH



KILLARA XTRA 2PT KIT INC OPTIMUM LOCK HANDLES & STRIKE	
PART	1344016
FINISH	BLACK (034) SATIN CHROME (094)
QTY	EACH



1m ROD WITH EXTENSION JOINER NO TIP P84017	
PART	1345144
FINISH	NOT SPECIFIED (099)
QTY	EACH

6. Hardware & Components

E2A Hardware Selection Chart - Outward Opening (up to 60kg per panel)

		E2ACPS CONCEALED PIVOT SET #1378624	E2AHS HINGE SET WITH HANDLE #1378625	E2AHS HALF OFFSET HINGE SET/ HDL #1378627	E2ACRCS CONC RIGHT CARRIER SET#1378621	E2ACICS CONC INTER CARRIER SET #1378622	E2ACLCS CONC LEFT CARRIER SET #1378620	E2ACMCS CONC MEET CARRIER SET #1378623	E2BPPSS WALL MOUNT PIVOT SET S/S #1378632	E2BPICSS INTER CARRIER SET # 1378638	E2BPECSS END CARRIER SET #1378639	E2BPMCSS MEETING CARRIER SET #1378648
Door Config.	2L	1	1		1							
	2R	1	1				1					
	1L,2R	2	1				1					
	2L,1R	2	1		1							
	3L or 3R	1		1		1						
	1L,3R	2		1		1						
	3L,1R	2		1		1						
	2L,2R	2	2					1				
	4L	1		2	1	1						
	4R	1		2		1	1					
	1L,4R	2		2		1	1					
	4L,1R	2		2	1	1						
	2L,3R	2	1	1	1	1						
	3L,2R	2	1	2		1	1					
	5L or 5R	1	1	1		2						
	3L,3R	2		2		2						
	3L,4R	2		3		2	1					
	4L,3R	2		3	1	2						
	7L or 7R	1	2	1		3						
	2L,5R	2	2	1	1	2						
	5L,2R	2	2	1		2	1					
Window Config. (no sill)	2L + 2R			2					2			1
	4L or 4R			2					1	1	1	

6. Hardware & Components

E3A Hardware Selection Chart - Outward Opening (up to 115kg per panel)

		E3ACPS PIVOT #1378608	E3AHS HINGE SET & HANDLE #1378611	E3AHS HALF OFFSET HINGE SET & HANDLE #1378602	E3ACRCS RIGHT CARRIER SET #1378604	E3ACICS INTERMEDIATE CARRIER SET #1378606	E3ACLCS LEFT CARRIER SET #1378603
Door Config.	2L	1	1		1		
	2R	1	1				1
	1L,2R	2	1				1
	2L,1R	2	1		1		
	3L or 3R	1		1		1	
	1L,3R	2		1		1	
	3L,1R	2		1		1	
	2L,2R	2	2		1		1
	4L	1		2	1	1	
	4R	1		2		1	1
	1L,4R	2		2		1	1
	4L,1R	2		2	1	1	
	2L,3R	2	1	1	1	1	
	3L,2R	2	1	2		1	1
	5L or 5R	1	1	1		2	
	3L,3R	2		2		2	
	3L,4R	2		3		2	1
	4L,3R	2		3	1	2	
	7L or 7R	1	2	1		3	
	2L,5R	2	2	1	1	2	
	5L,2R	2	2	1		2	1

Silicone



100% NEUTRAL CURE SILICONE

- Premium 100% silicone
- UV Stable
- Superior adhesion
- Flexible + 25%
- AS4020 Approved



100% MATTE NEUTRAL CURE SILICONE

- Premium 100% silicone
- Matte finish
- UV Stable
- Outstanding elongation
- Higher strength



41 CLADDING SILICONE

- Premium 100% silicone
- UV Stable
- Superior adhesion
- Movement capability + 50%



WET AREA SILICONE

- Premium 100% silicone
- Mould inhibited
- Movement capability + 25%
- UV Stable
- Non corrosive
- Superior adhesion



HYBRID PU ADHESIVE SEALANT

- No isocyanates
- Internal/External
- No shrinking/staining
- Paintable
- Excellent adhesion



20 ACETIC CURE SILICONE

- Premium 100% silicone
- UV Stable
- Superior adhesion
- Flexible + 25%



D60 SILICONE

- Premium 100% silicone
- UV Stable
- 2-5 minute skin time
- Flexible + 25%
- No slump

*For more information on silicones,
please refer to Alspec Silicone Brochure.

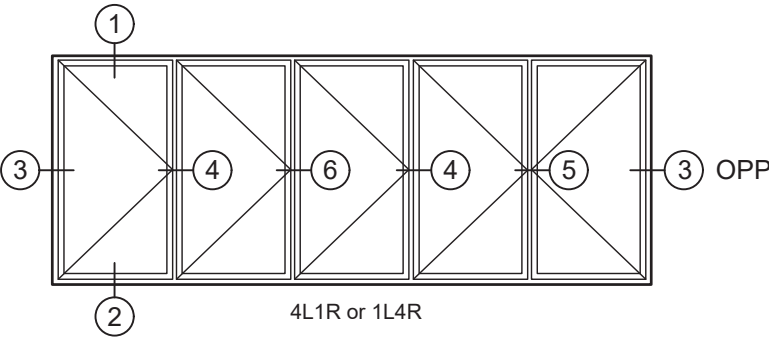
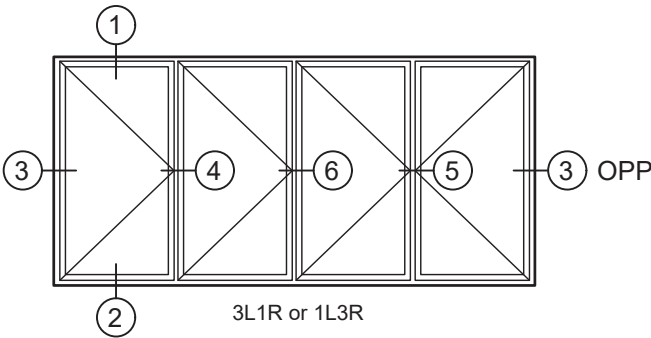
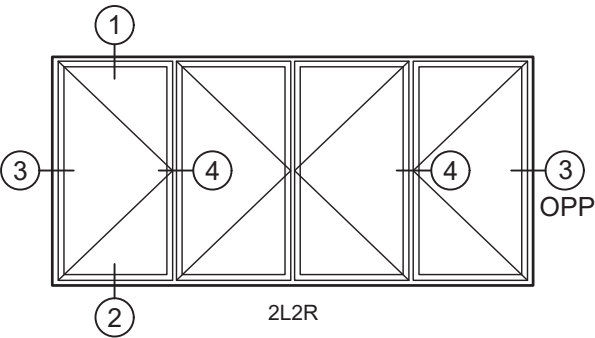
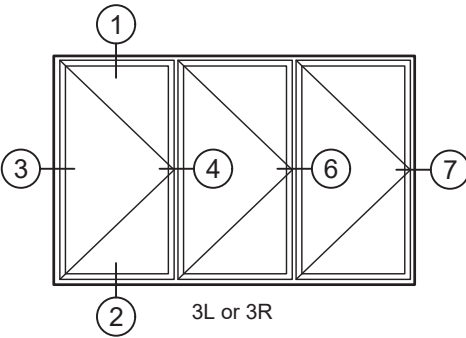
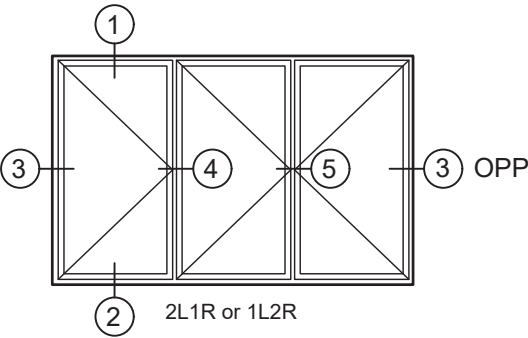
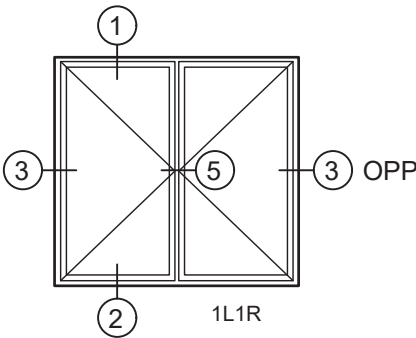
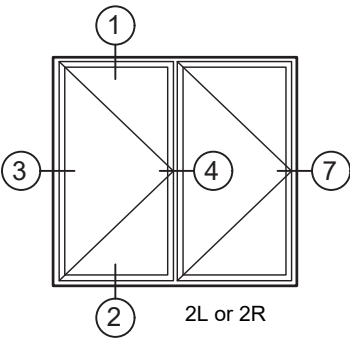


6. Hardware & Components

Silicone Product Codes

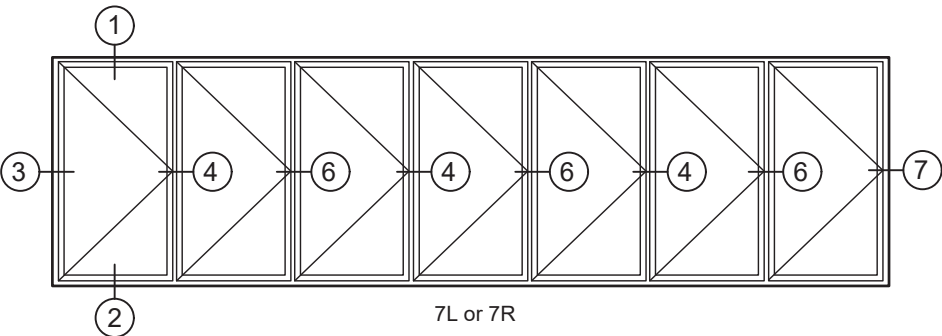
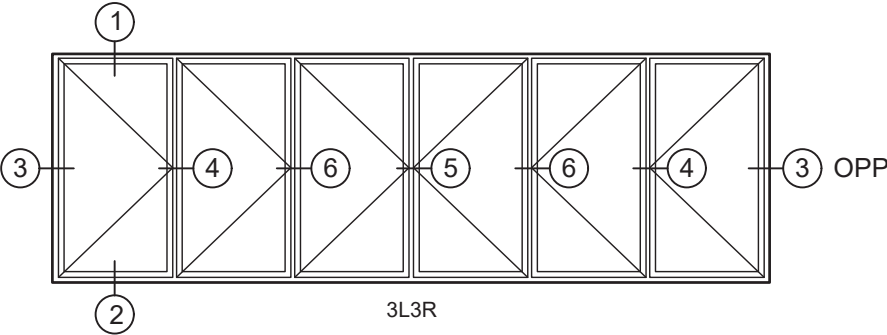
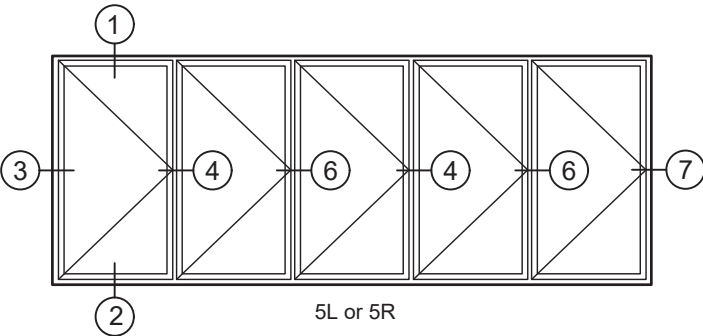
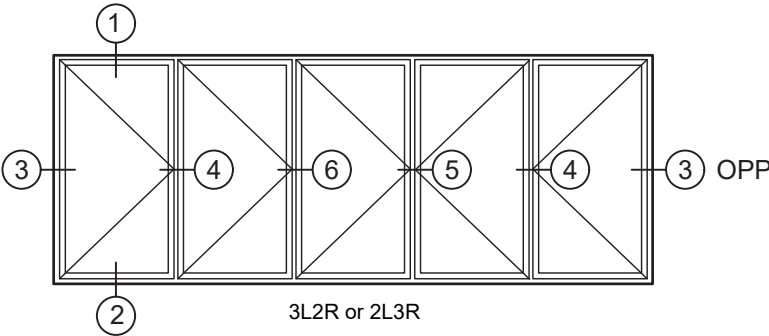
Product Category	Item No.	Alspec Part No. Code	Description	Finish	Pack
ALSPEC 100%	1	1386113	ALSPEC 100% NEUTRAL CURE SILICONE x 310g CAT	ALMOND IVORY	CARTRIDGE
	2	1386114	ALSPEC 100% NEUTRAL CURE SILICONE x 310g CAT	ALUMINIUM	CARTRIDGE
	3	1386105	ALSPEC 100% NEUTRAL CURE SILICONE x 310g CAT	BLACK	CARTRIDGE
	4	1386140	ALSPEC 100% NEUTRAL CURE SILICONE x 310g CAT	CAULFIELD GREEN	CARTRIDGE
	5	1386111	ALSPEC 100% NEUTRAL CURE SILICONE x 310g CAT	CLASSIC CREAM	CARTRIDGE
	6	1386108	ALSPEC 100% NEUTRAL CURE SILICONE x 310g CAT	GREY	CARTRIDGE
	7	1386138	ALSPEC 100% NEUTRAL CURE SILICONE x 310g CAT	MONUMENT	CARTRIDGE
	8	1386112	ALSPEC 100% NEUTRAL CURE SILICONE x 310g CAT	OFF WHITE	CARTRIDGE
	9	1386141	ALSPEC 100% NEUTRAL CURE SILICONE x 310g CAT	STONE BEIGE	CARTRIDGE
	10	1386101	ALSPEC 100% NEUTRAL CURE SILICONE x 310g CAT	TRANSLUCENT	CARTRIDGE
	11	1386106	ALSPEC 100% NEUTRAL CURE SILICONE x 310g CAT	WHITE	CARTRIDGE
	12	1386143	ALSPEC 100% NEUTRAL CURE SILICONE x 310g CAT	WOODLAND GREY	CARTRIDGE
ALSPEC 100% MATT	13	1386103	ALSPEC 100% NEUTRAL CURE SILICONE x 420g CAT	BLACK MATT	CARTRIDGE
	14	1386107	ALSPEC 100% NEUTRAL CURE SILICONE x 420g CAT	GREY MATT	CARTRIDGE
	15	1386144	ALSPEC 100% NEUTRAL CURE SILICONE x 420g CAT	WHITE MATT	CARTRIDGE
ALSPEC 20	16	1386115	ALSPEC 20 SILICONE x 310g CAT	TRANSLUCENT	CARTRIDGE
ALSPEC 41 CLADDING	17	1386159	ALSPEC 41 SILICONE x 400g CAT	BLACK MATT	CARTRIDGE
	18	1386117	ALSPEC 41 SILICONE x 600ml SAU	BLACK MATT	SAUSAGE
	19	1386158	ALSPEC 41 SILICONE x 400g CAT	LIGHT GREY MATT	CARTRIDGE
	20	1386118	ALSPEC 41 SILICONE x 600ml SAU	LIGHT GREY MATT	SAUSAGE
	21	1386157	ALSPEC 41 SILICONE x 400g CAT	WHITE MATT	CARTRIDGE
	22	1386145	ALSPEC 41 SILICONE x 600ml SAU	WHITE MATT	SAUSAGE
ALSPEC D60	23	1386121	ALSPEC D60 SILICONE x 310g CAT	BLACK	CARTRIDGE
	25	1386123	ALSPEC D60 SILICONE x 310g CAT	GREY	CARTRIDGE
	26	1386120	ALSPEC D60 SILICONE x 310g CAT	TRANSLUCENT	CARTRIDGE
	27	1386124	ALSPEC D60 SILICONE x 310g CAT	WHITE	CARTRIDGE
ALSPEC HYBRID PU	28	1386127	ALSPEC HYBRID PU x 480g CAT	BLACK	CARTRIDGE
	29	1386126	ALSPEC HYBRID PU x 600ml SAU	BLACK	SAUSAGE
	30	1386160	ALSPEC HYBRID PU x 480g CAT	GREY	CARTRIDGE
	31	1386128	ALSPEC HYBRID PU x 600ml SAU	GREY	SAUSAGE
	32	1386130	ALSPEC HYBRID PU x 480g CAT	WHITE	CARTRIDGE
	33	1386129	ALSPEC HYBRID PU x 600ml SAU	WHITE	SAUSAGE
ALSPEC WET AREA	34	1386137	ALSPEC WET AREA SILICONE x 310g CAT	ALMOND IVORY	CARTRIDGE
	35	1386139	ALSPEC WET AREA SILICONE x 310g CAT	BLACK	CARTRIDGE
	36	1386146	ALSPEC WET AREA SILICONE x 310g CAT	BLUESTONE	CARTRIDGE
	37	1386147	ALSPEC WET AREA SILICONE x 310g CAT	CHARCOAL	CARTRIDGE
	38	1386136	ALSPEC WET AREA SILICONE x 310g CAT	LIGHT GREY	CARTRIDGE
	39	1386148	ALSPEC WET AREA SILICONE x 310g CAT	MID GREY	CARTRIDGE
	40	1386149	ALSPEC WET AREA SILICONE x 310g CAT	OFF WHITE	CARTRIDGE
	41	1386150	ALSPEC WET AREA SILICONE x 310g CAT	PEWTER	CARTRIDGE
	42	1386151	ALSPEC WET AREA SILICONE x 310g CAT	STONE BEIGE	CARTRIDGE
	43	1386154	ALSPEC WET AREA SILICONE x 310g CAT	TAUPE	CARTRIDGE
	44	1386152	ALSPEC WET AREA SILICONE x 310g CAT	TILE GREY	CARTRIDGE
	45	1386133	ALSPEC WET AREA SILICONE x 310g CAT	TRANSLUCENT	CARTRIDGE
	46	1386153	ALSPEC WET AREA SILICONE x 310g CAT	TRAVERTINE	CARTRIDGE
	47	1386134	ALSPEC WET AREA SILICONE x 310g CAT	WHITE	CARTRIDGE

7. Typical Elevation



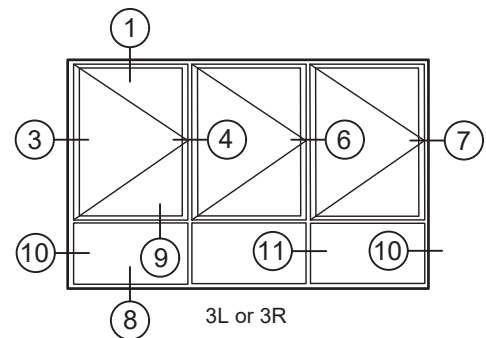
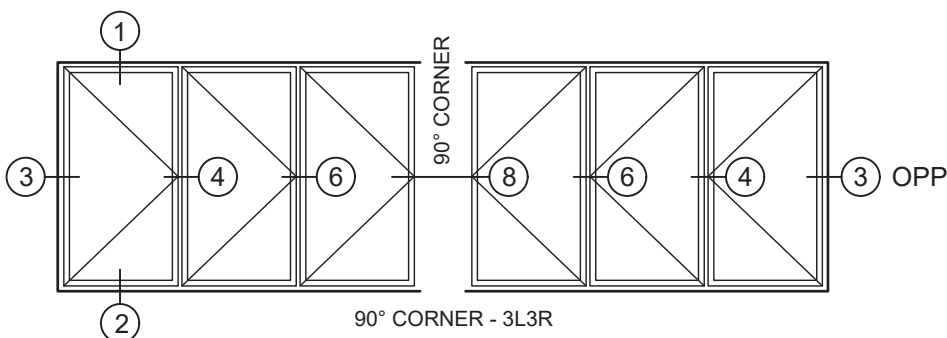
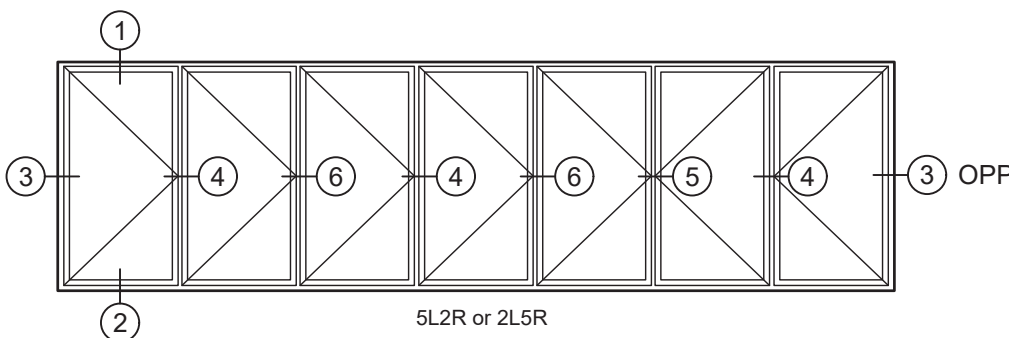
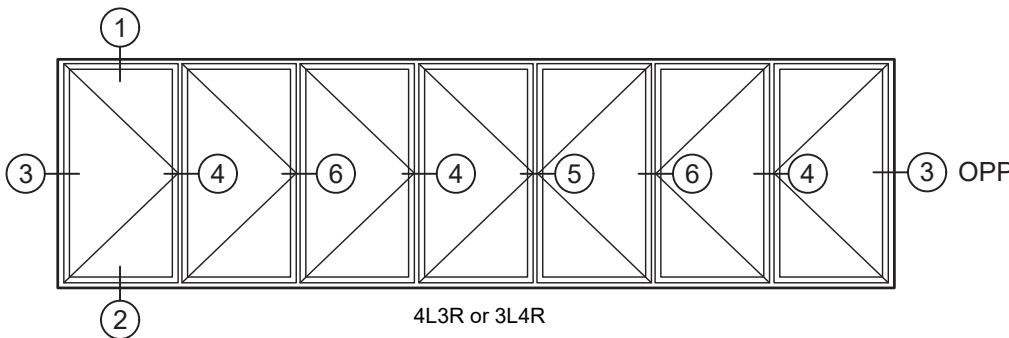
NOTE: OTHER FRAME CONFIGURATIONS ARE AVAILABLE.

7. Typical Elevation



NOTE: OTHER FRAME CONFIGURATIONS ARE AVAILABLE.

7. Typical Elevation

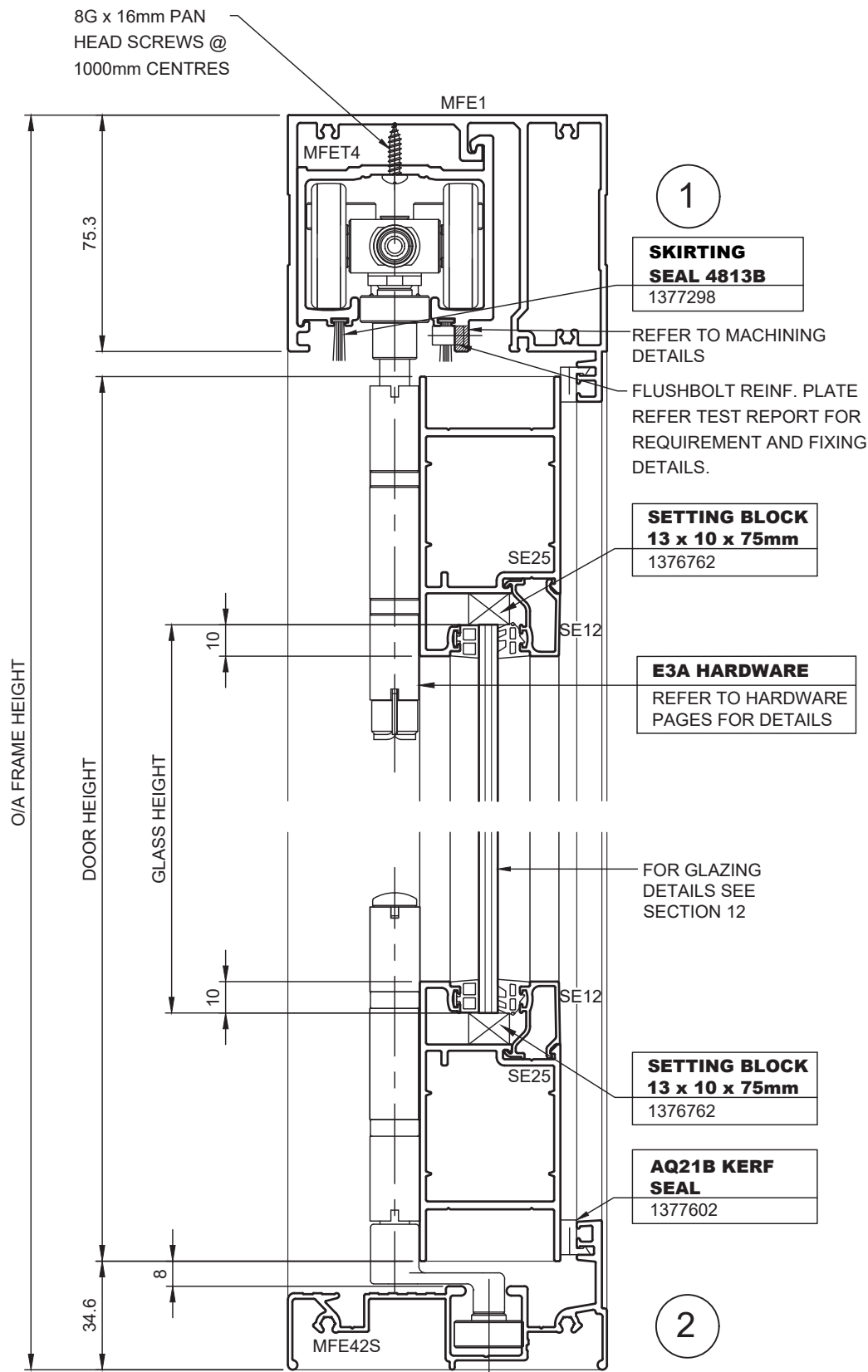


NOTE: OTHER FRAME CONFIGURATIONS ARE AVAILABLE.



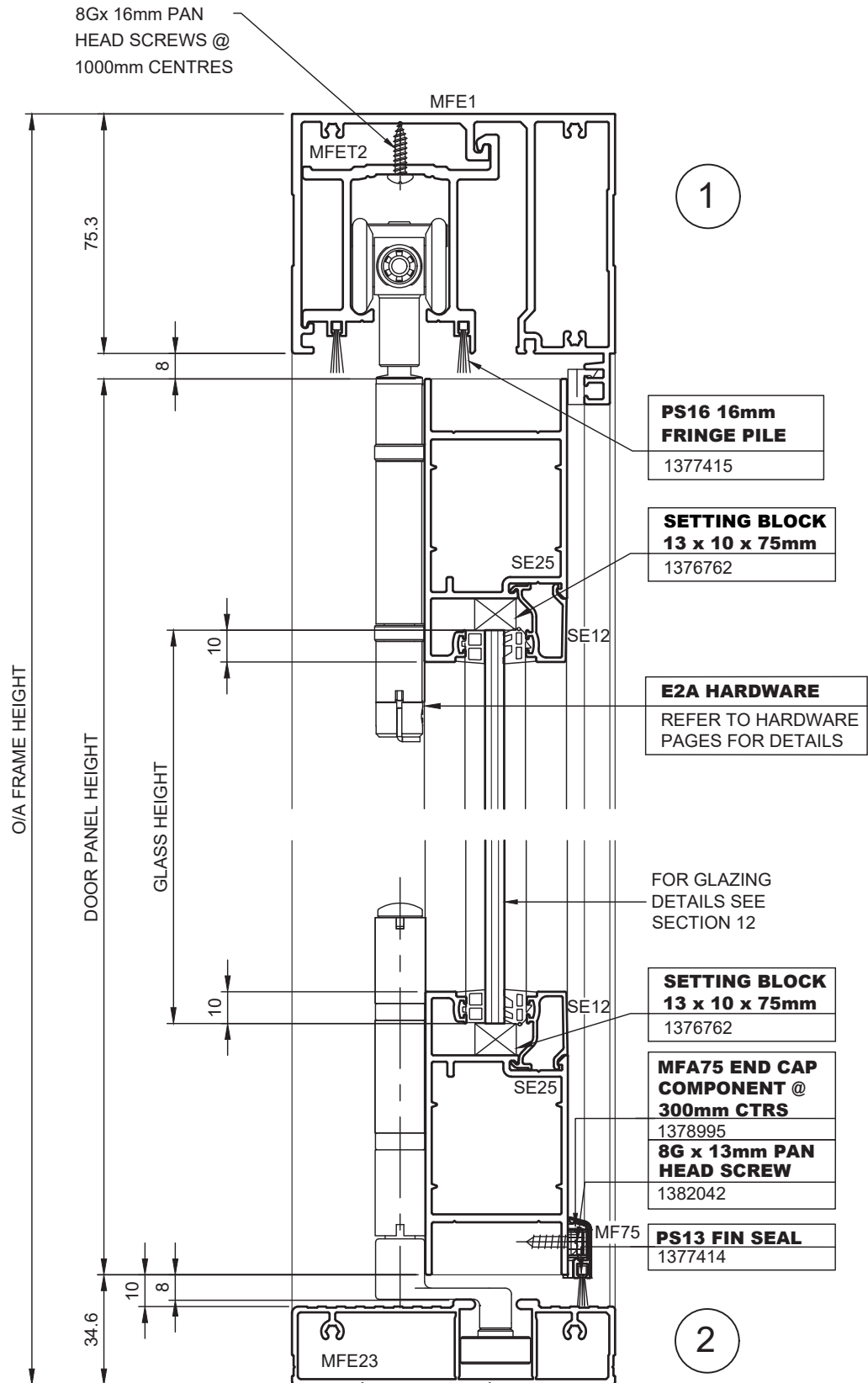
8. Typical Details

Typical Head & Sill Detail - E3A Hardware



8. Typical Details

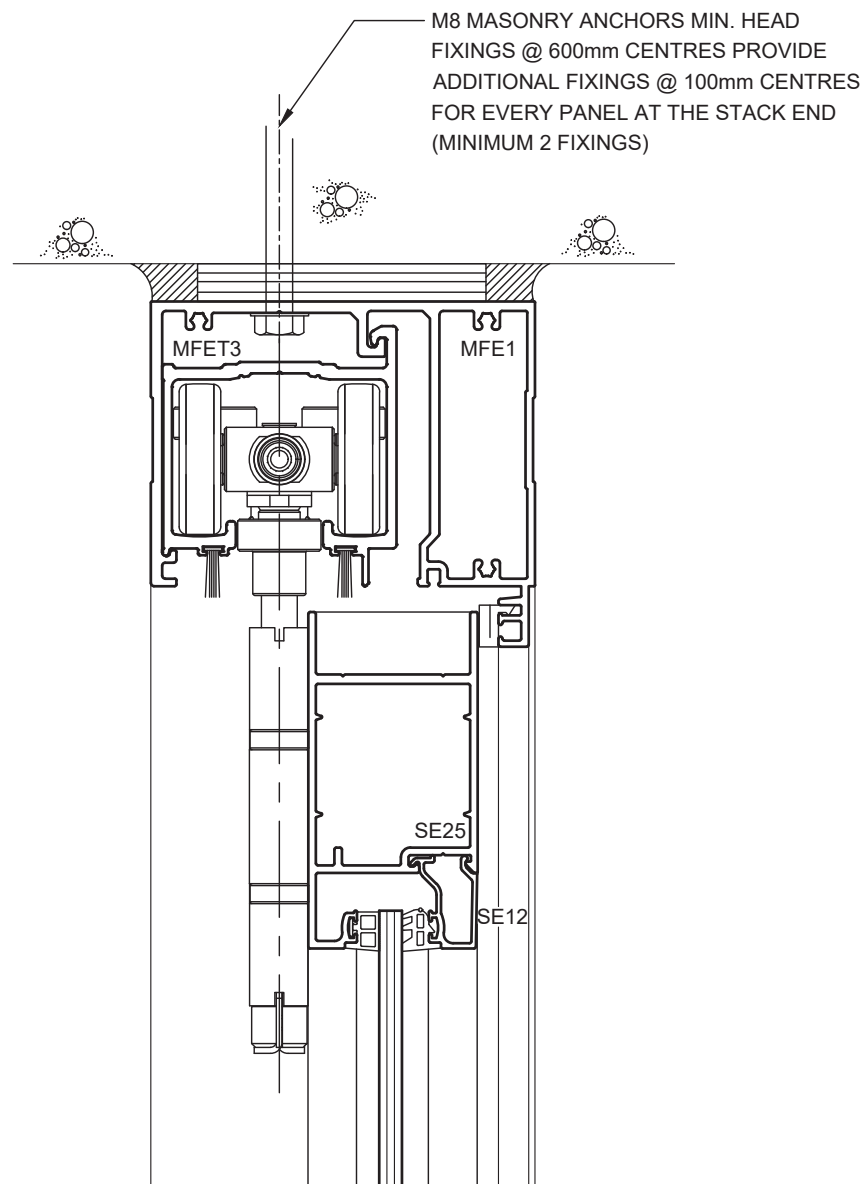
Typical Head & Sill Detail - E2A Hardware



8. Typical Details

Typical Head Fixing Detail

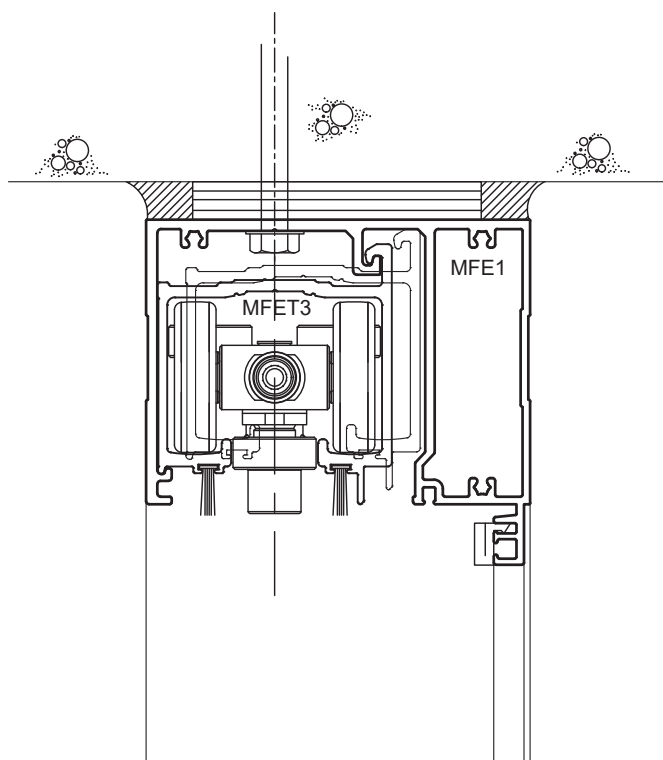
NOTE:
AS THE HAWKESBURY DOOR IS A TOP ROLLING SYSTEM IT
IS IMPORTANT THAT PACKING IS CORRECTLY FITTED SO
THE HEAD REMAINS SQUARE AFTER TIGHTENING FITTINGS.



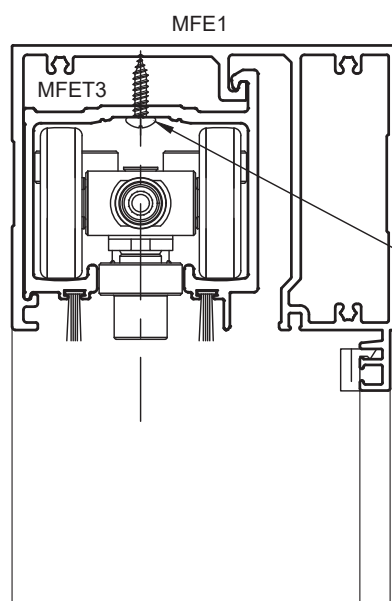
E3A SHOWN ABOVE - SAME INSTRUCTIONS APPLY FOR E2A

8. Typical Details

Top Track Assembly Detail



FOLLOW FITTING PROCEDURES FOR CARRIAGE AND HINGE ASSEMBLIES AS PER THE INSTALLATION BROCHURE FOR THE E3A FOLDING DOOR. REMOVE ROLLER ASSEMBLIES FROM THE DOOR PANELS AND INSERT IN CORRECT ORDER INTO THE TRACK EXTRUSION (MFET3) LIFT THE TRACK INTO THE HEAD AND POSITION AS INDICATED.



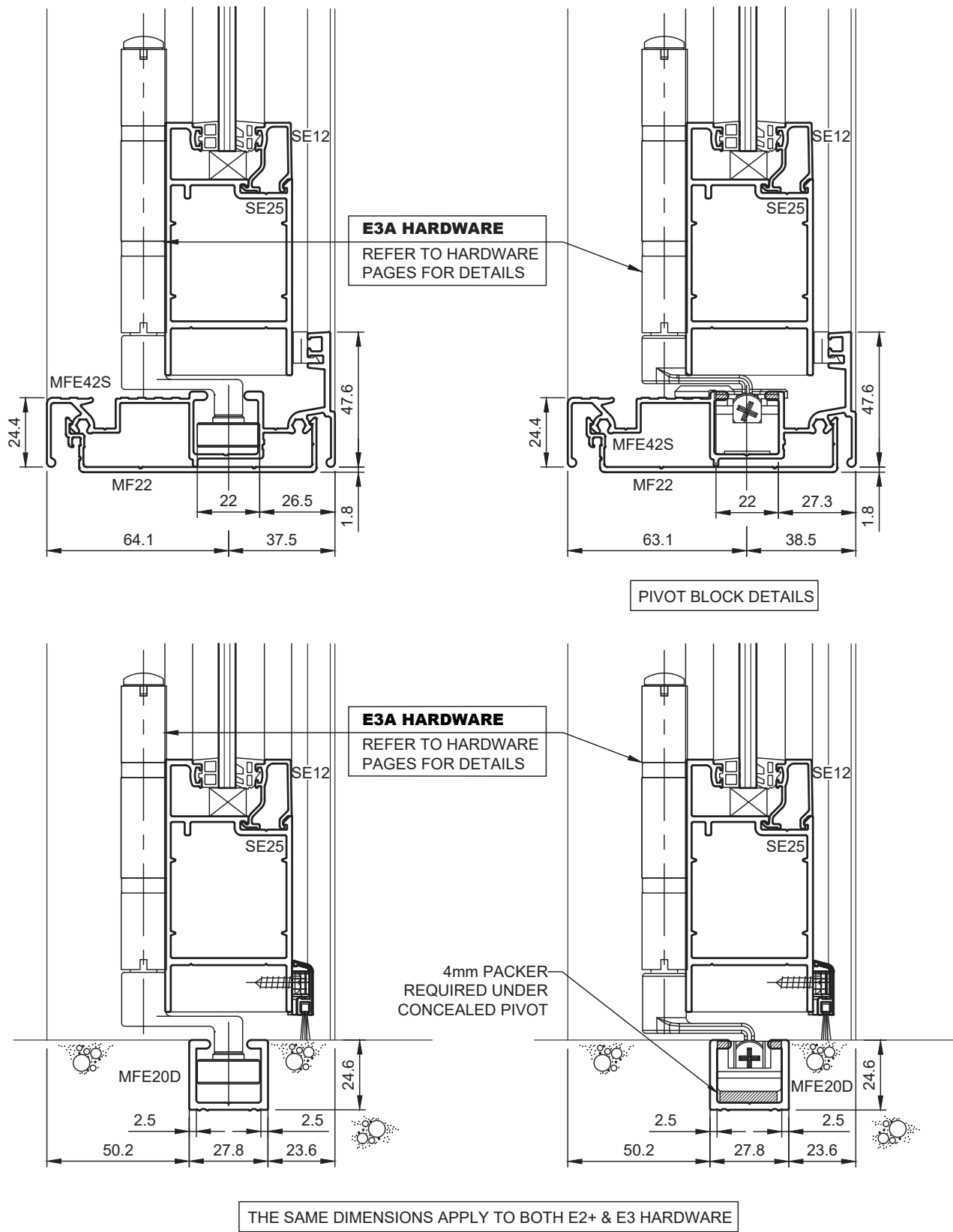
LOCATE INTERFERENCE SCREWS TO ELIMINATE UPWARD MOVEMENT. 8 GAUGE x 16mm PAN HEAD SCREWS AT 1000mm CENTRES

E3A SHOWN ABOVE - SAME INSTRUCTIONS APPLY FOR E2A



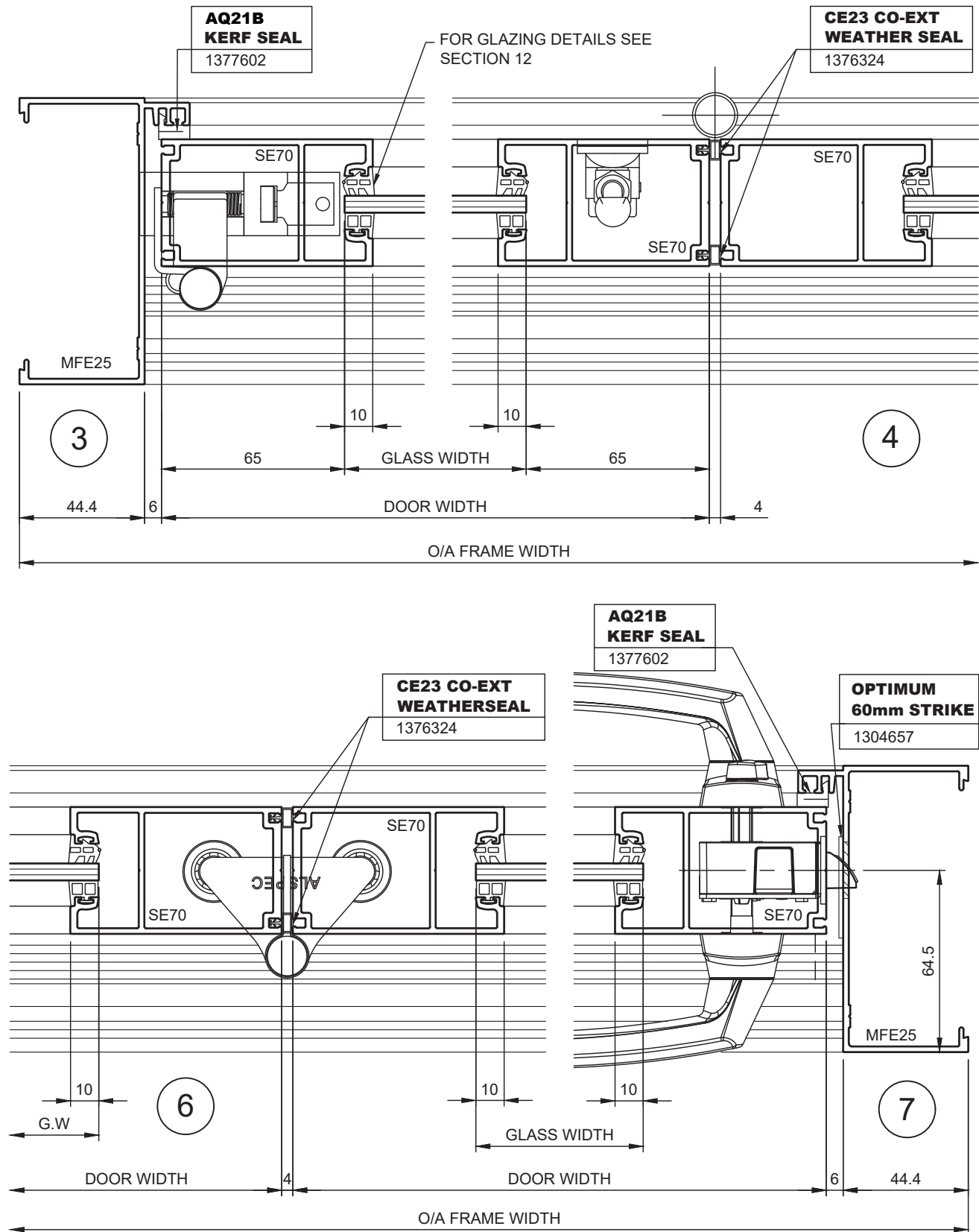
8. Typical Details

Sill Setout Dimensions



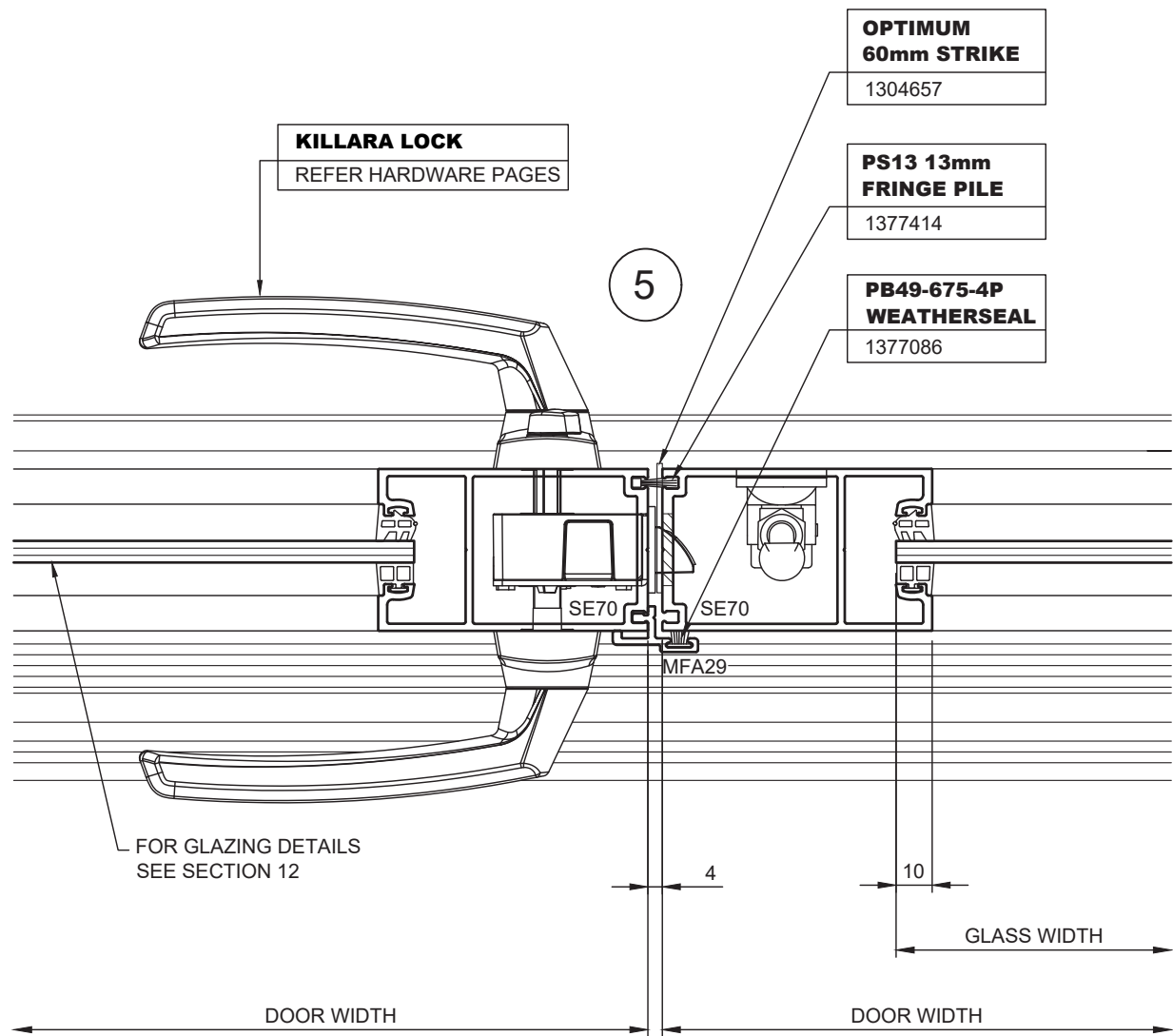
8. Typical Details

Typical LH Jamb, Hinge/ Intermediate Meeting Stile & Lock Stile / Jamb



8. Typical Details

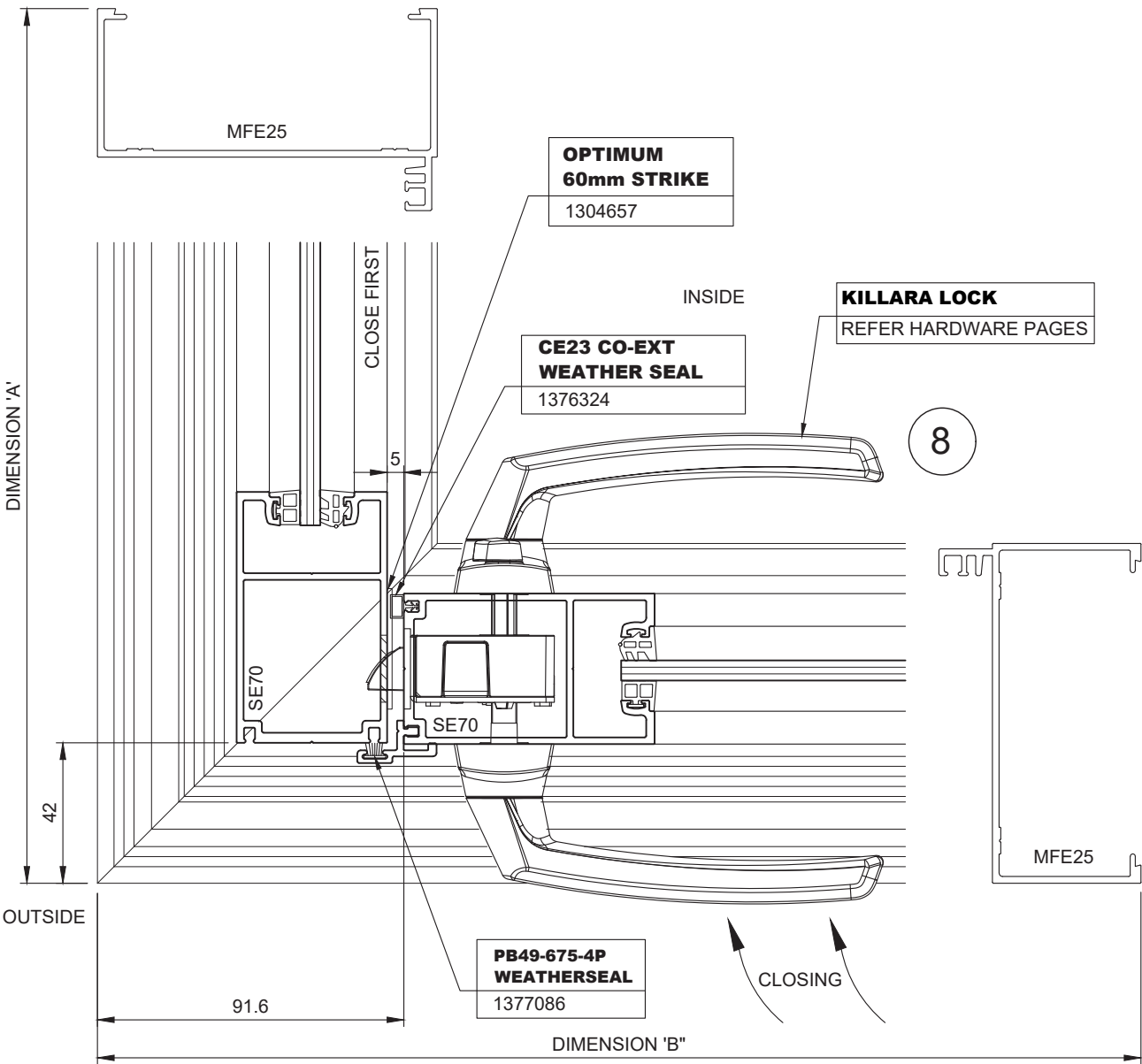
Typical Lock Meeting Stile Detail



8. Typical Details

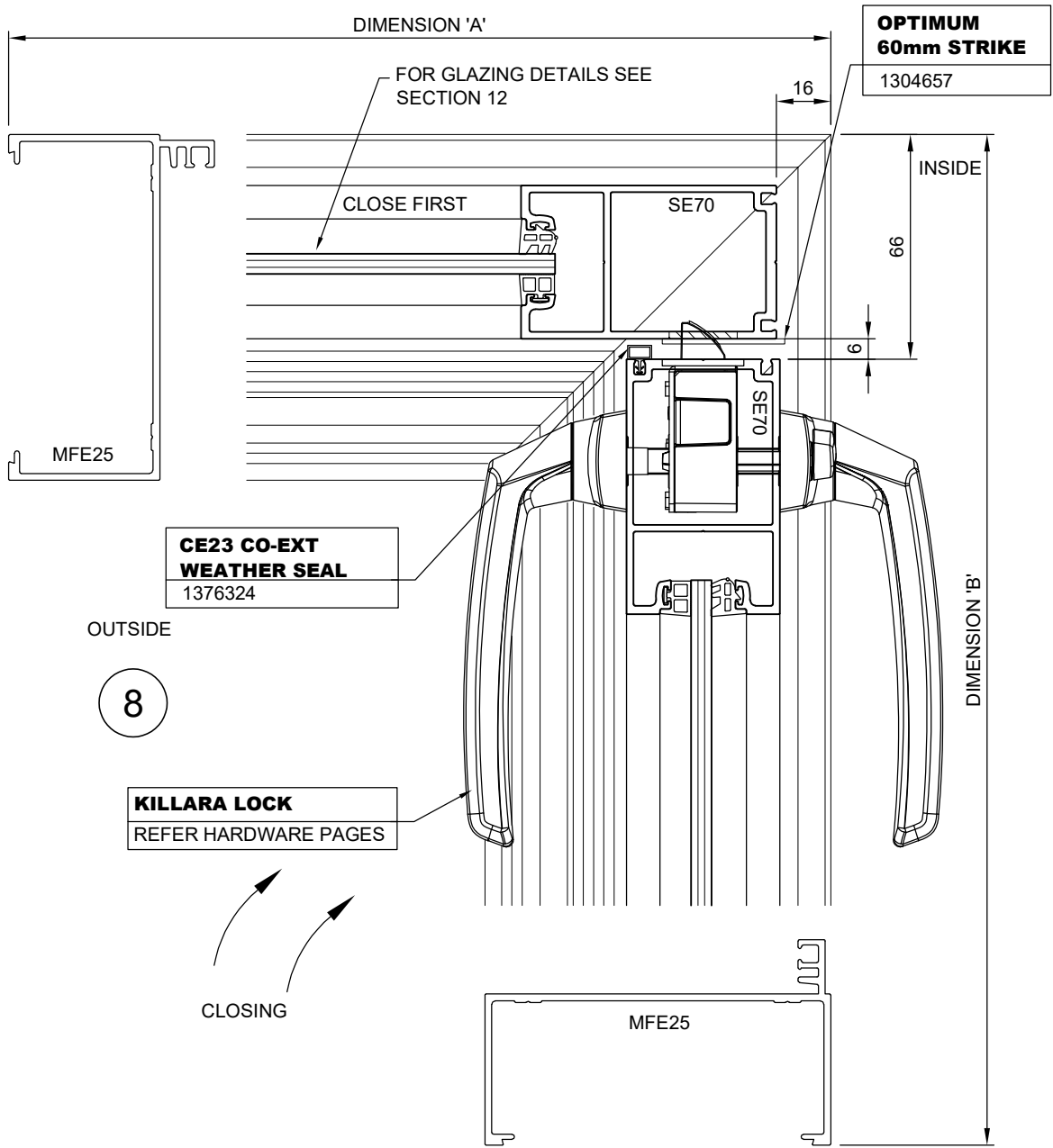
External Corner Detail

NOTE: AN ODD NUMBER OF PANELS MUST BE USED FOR CORNER BI-FOLD DOORS



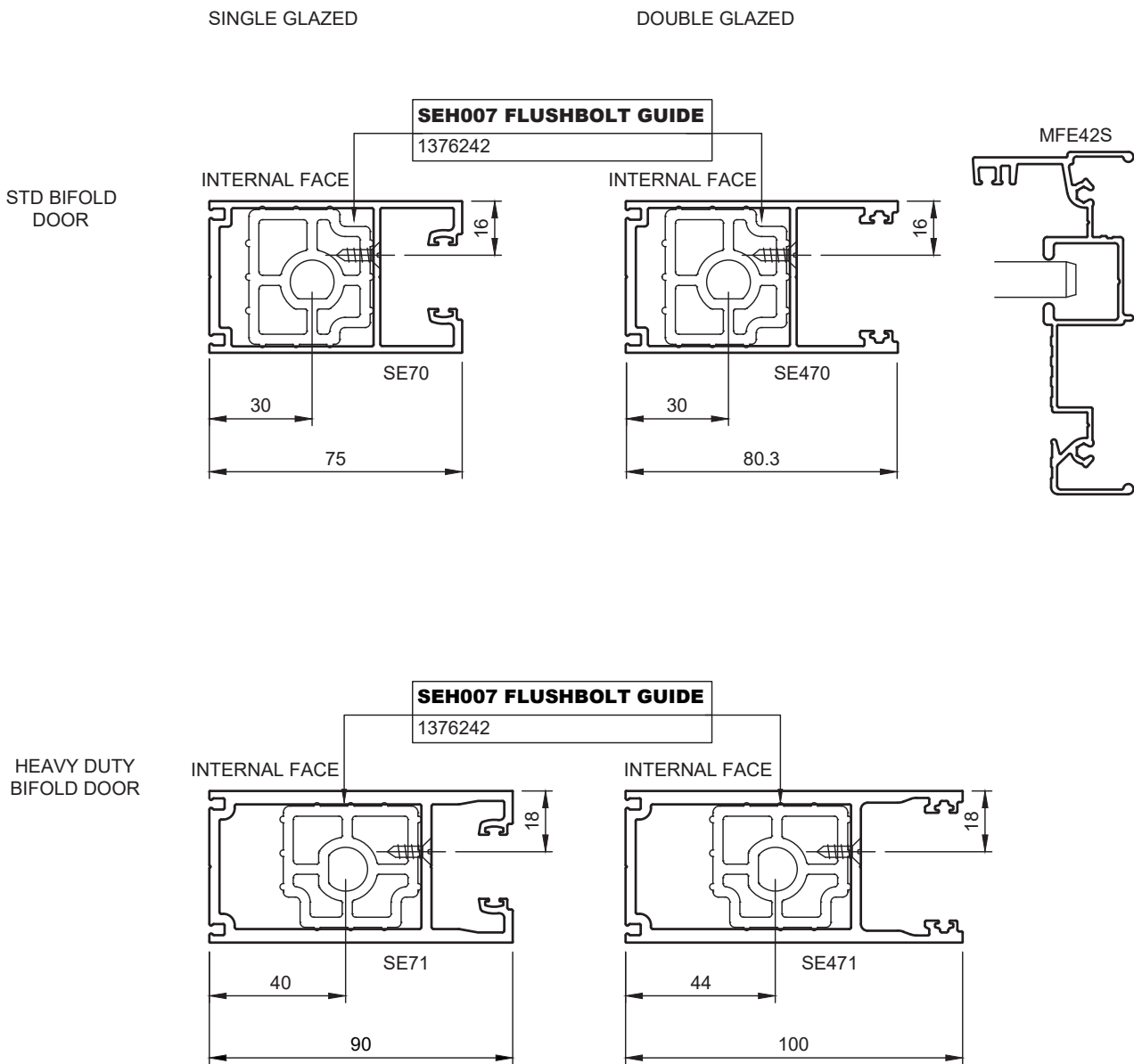
Internal Corner Detail

NOTE: AN ODD NUMBER OF PANELS MUST BE USED FOR CORNER BI-FOLD DOORS

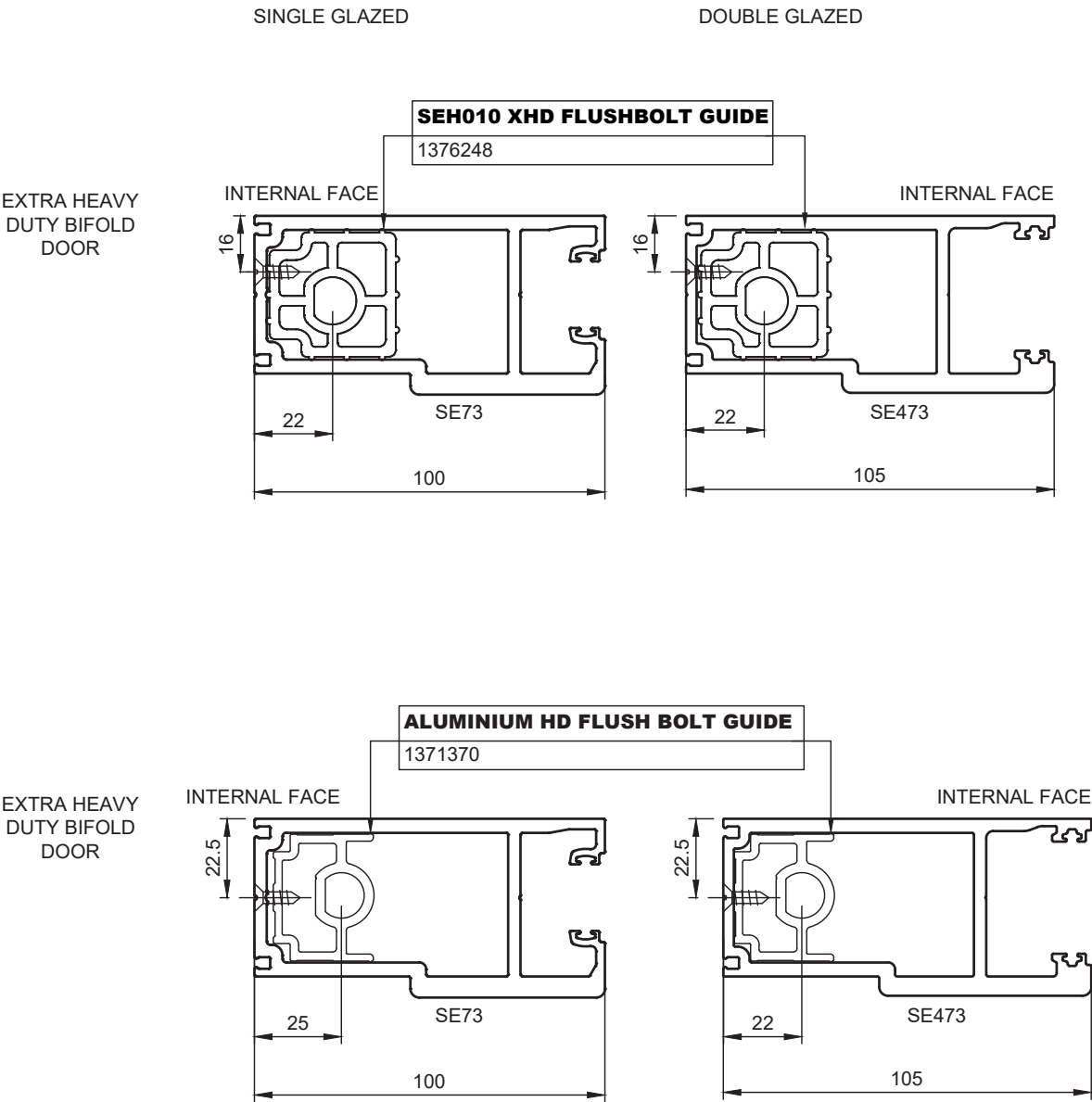


8. Typical Details

Flush Bolt Guide Orientations

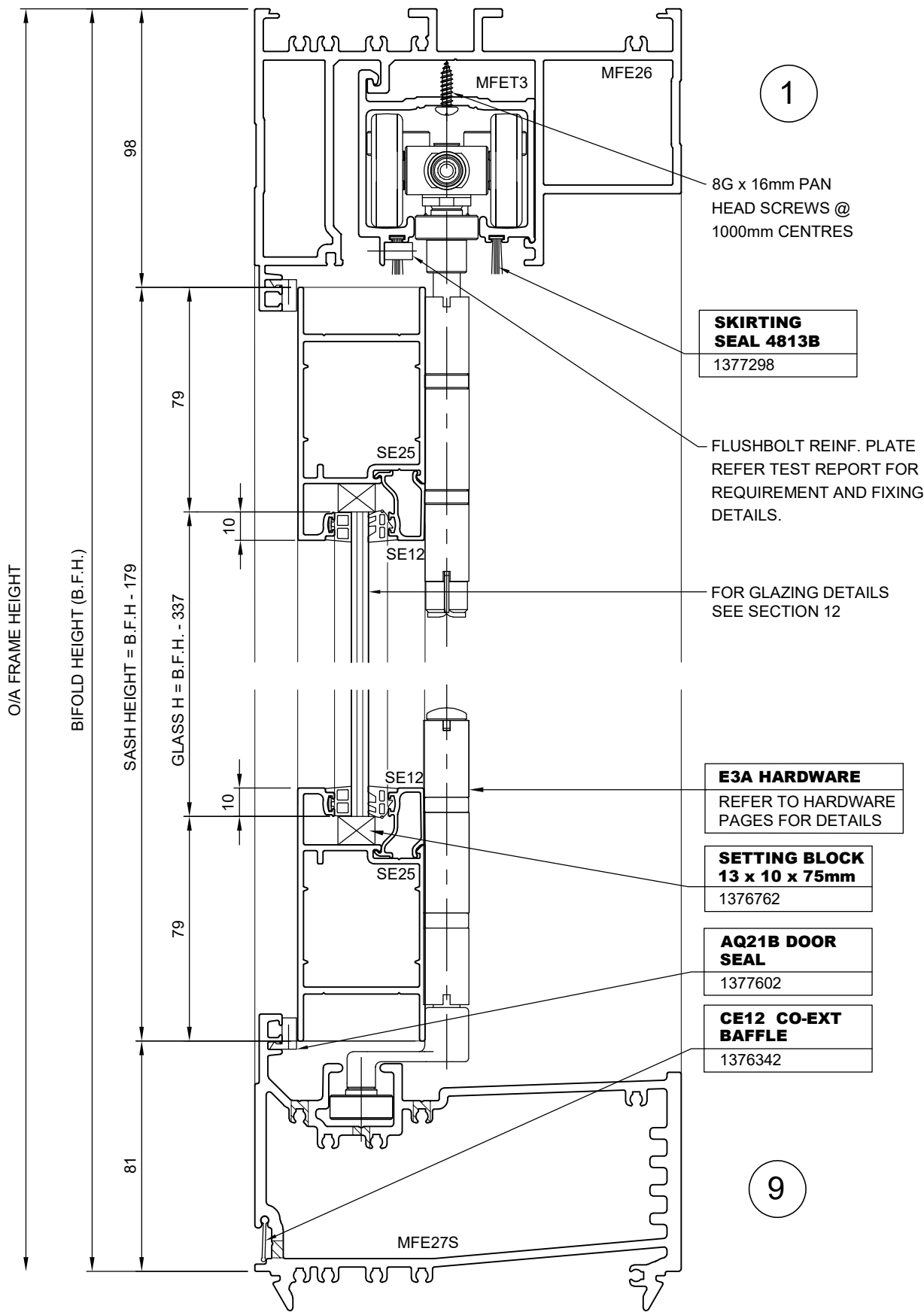


Flush Bolt Guide Orientations



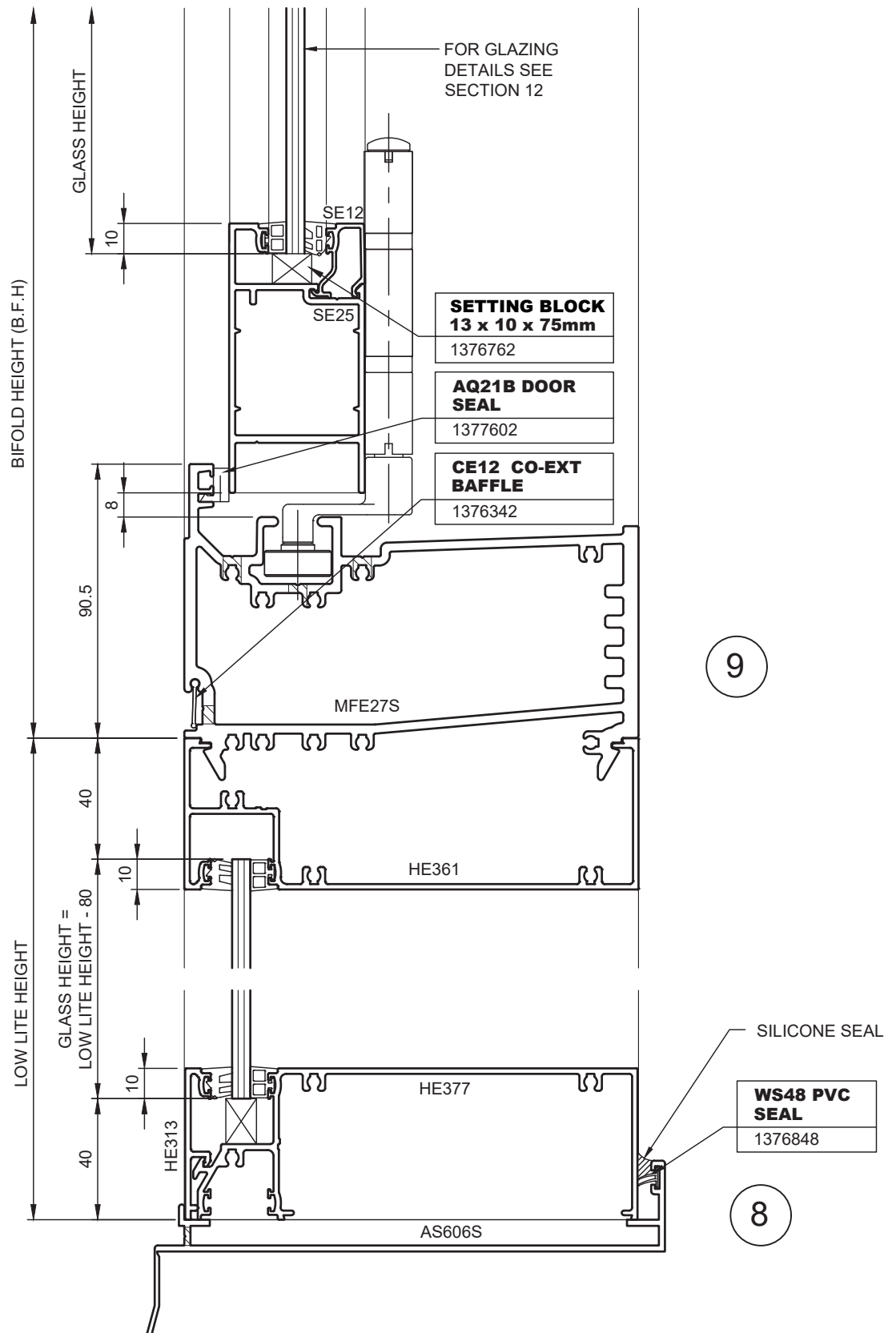
8. Typical Details

Vertical Detail - 150mm Head & Transom - Open In



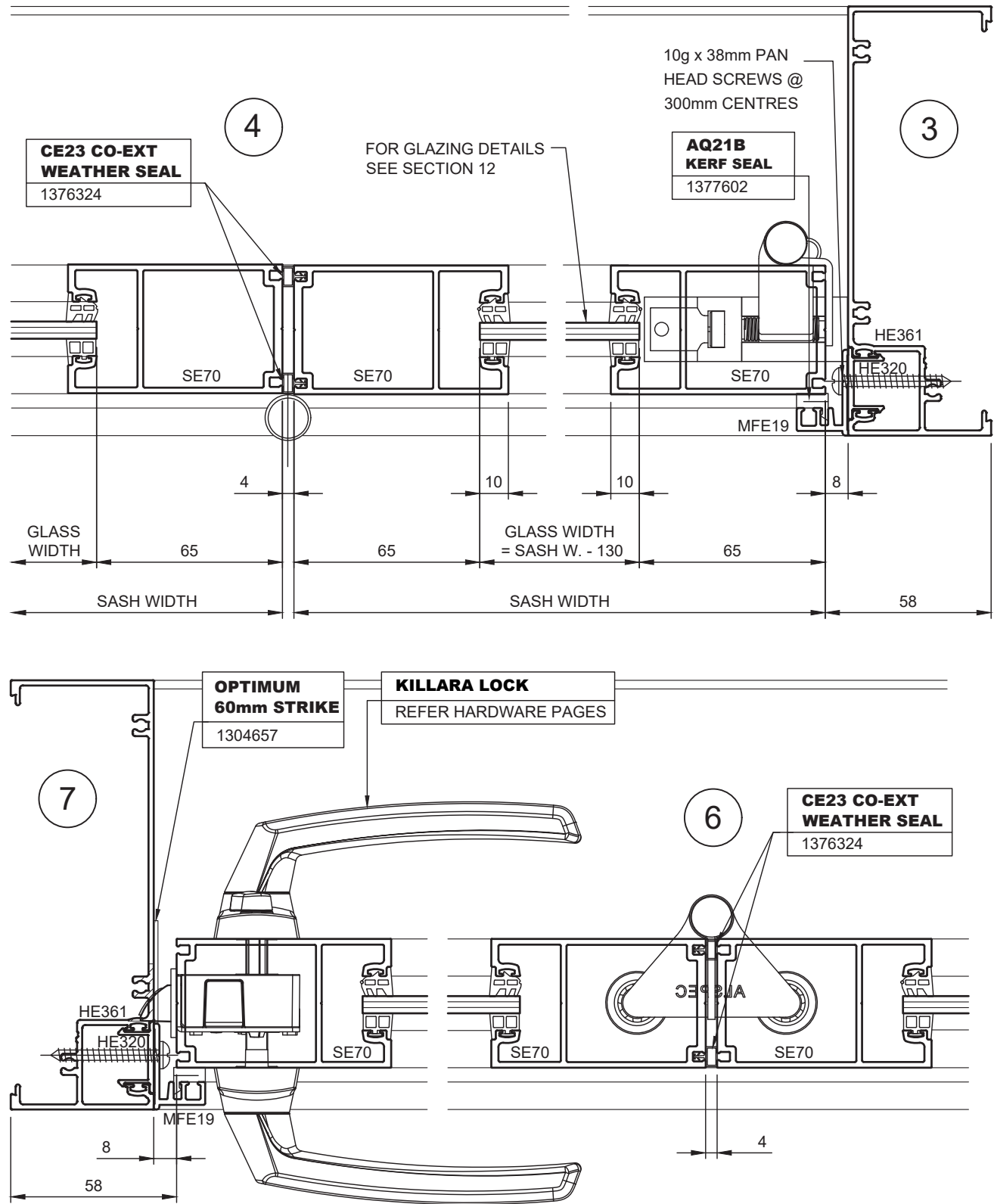
8. Typical Details

Vertical Detail - 150mm Transom & Hunter Evo Low Lite - Open In



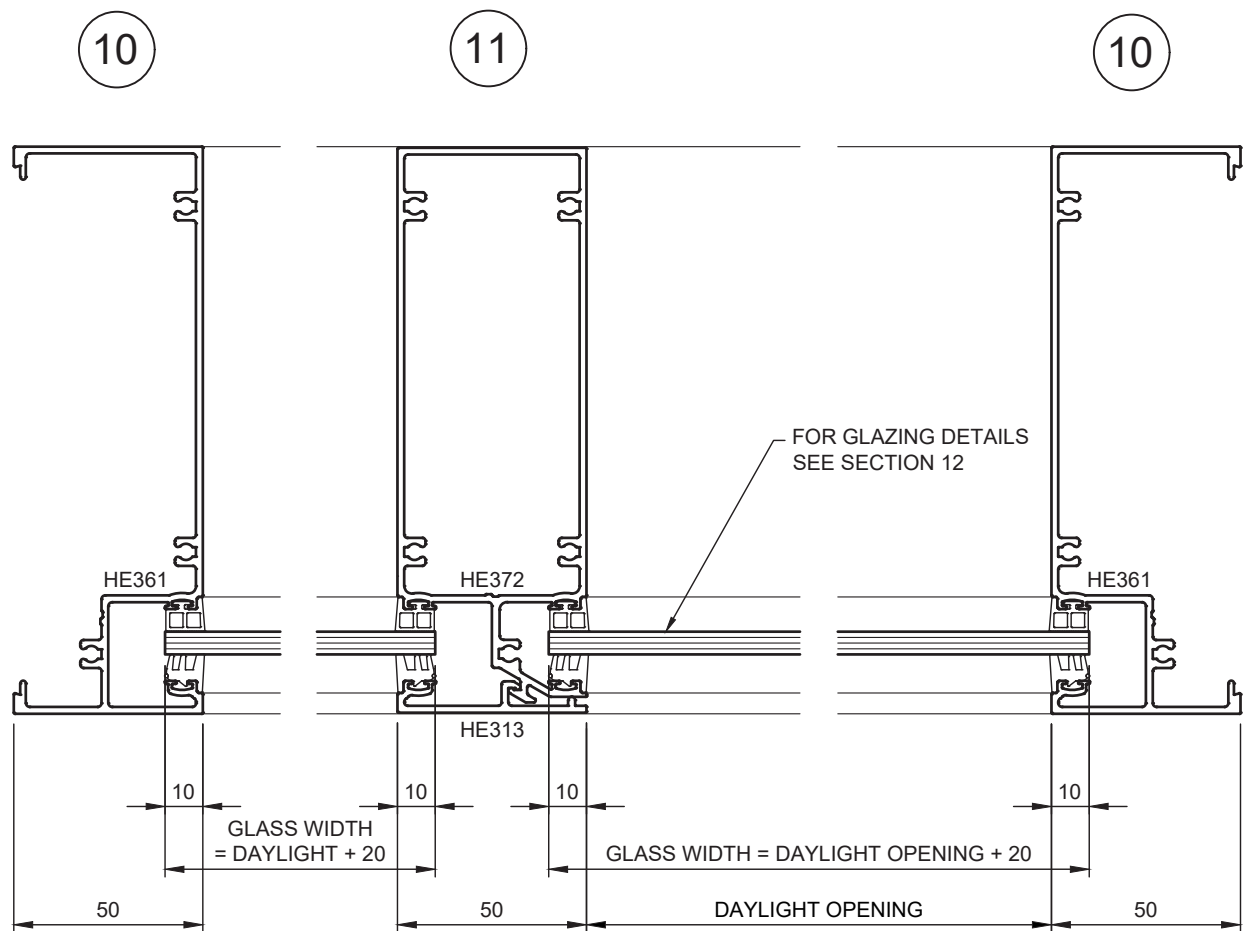
8. Typical Details

Horizontal Detail - LH Jamb, Hinge Stile, Meeting Stile & Lock Stile / Jamb - Open In



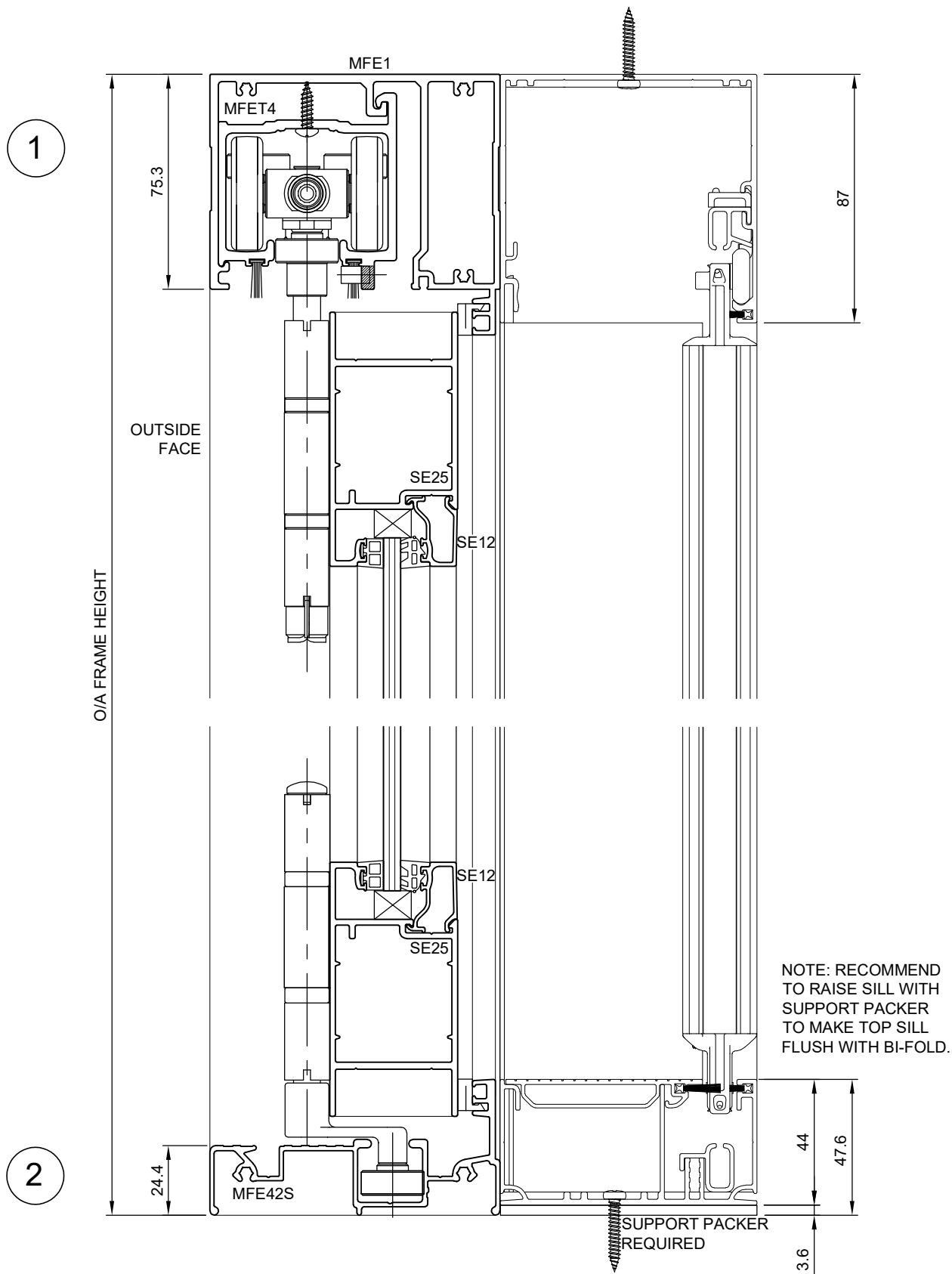
8. Typical Details

Horizontal Detail - Hunter Evo Low Lite Jamb / Mullion



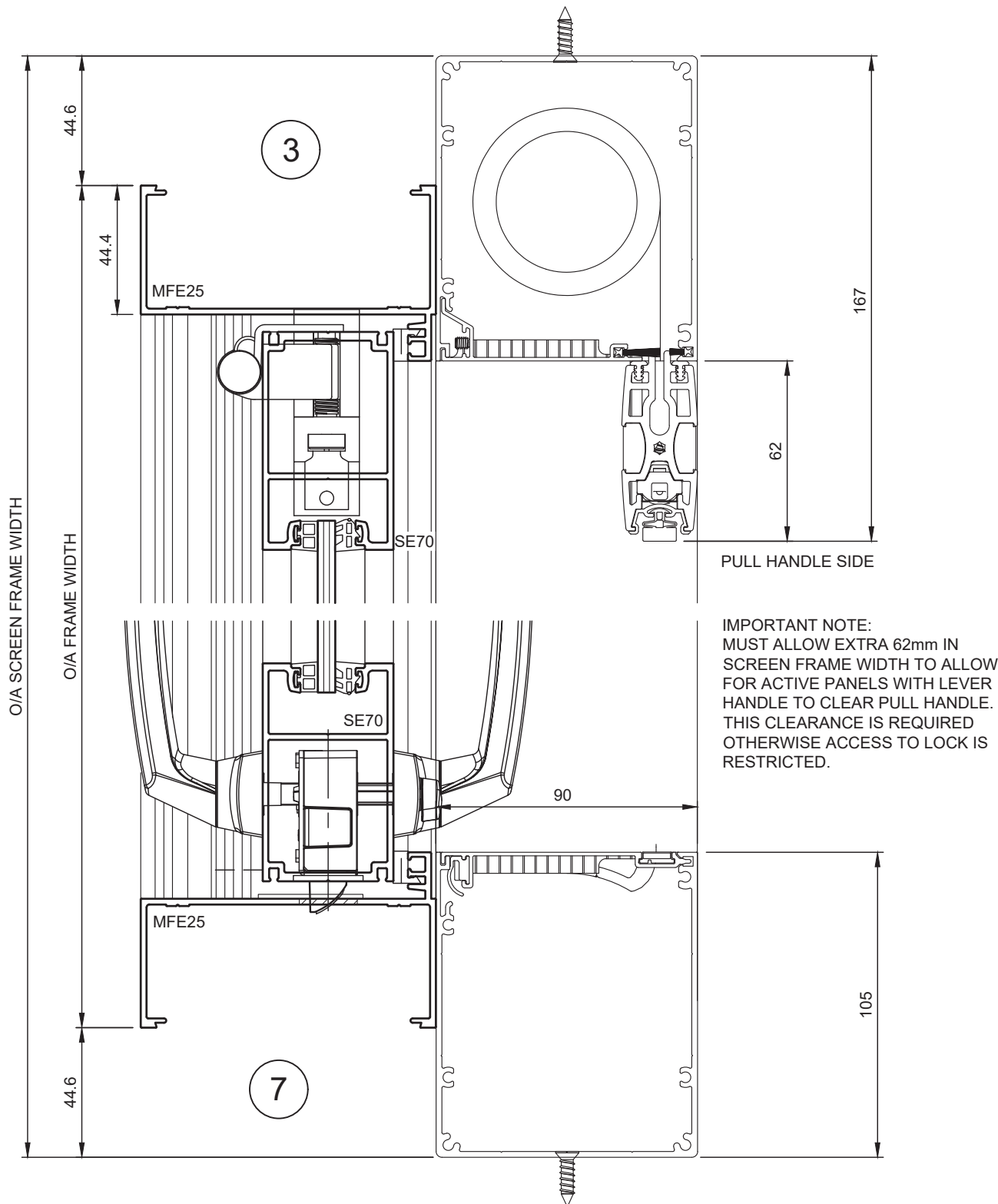
8. Typical Details

Vertical Detail - Open Out - Std Sill & Centor S4 Screen



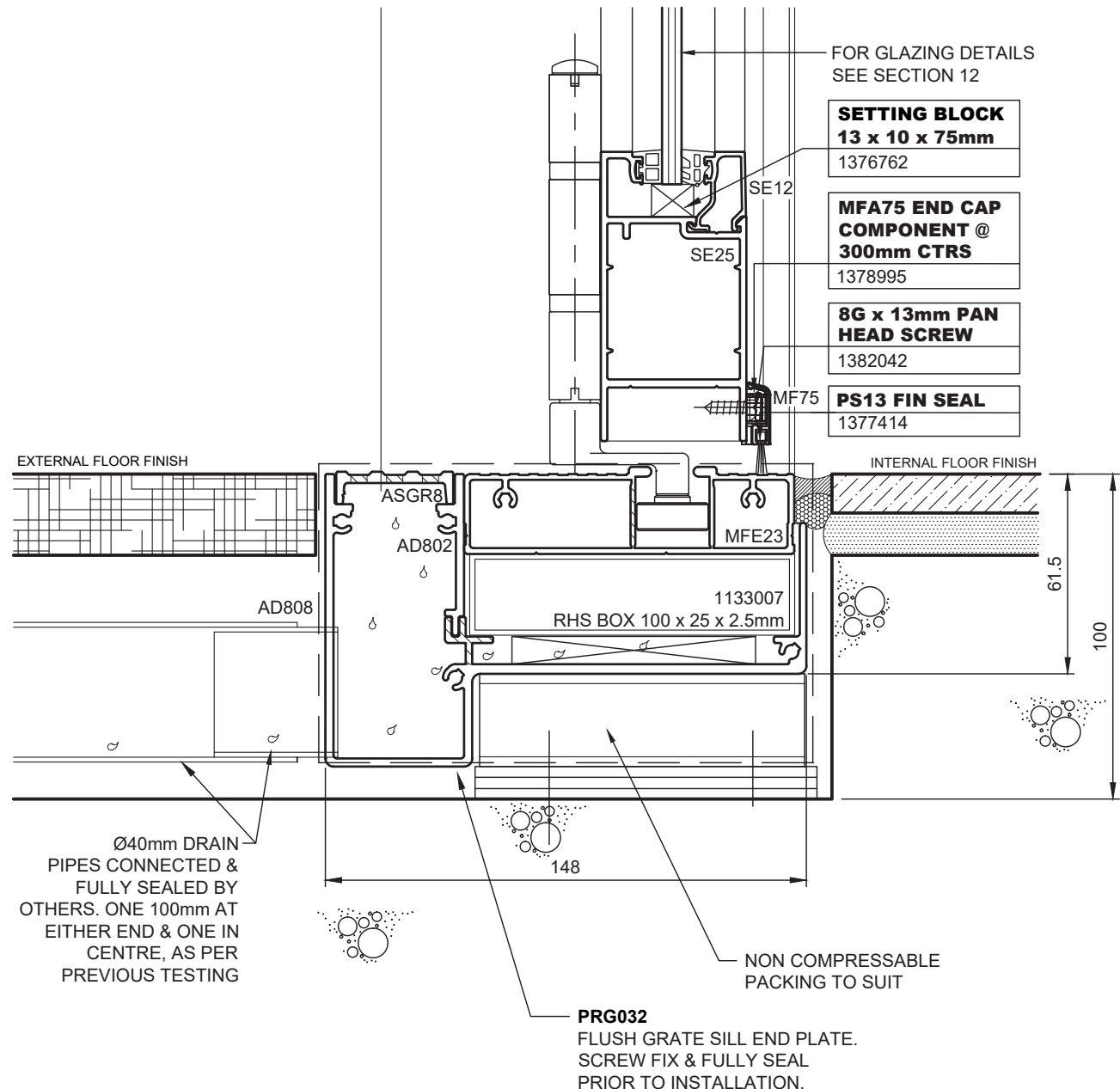
8. Typical Details

Horizontal Detail - Door Open Out & Centor S4 Screen

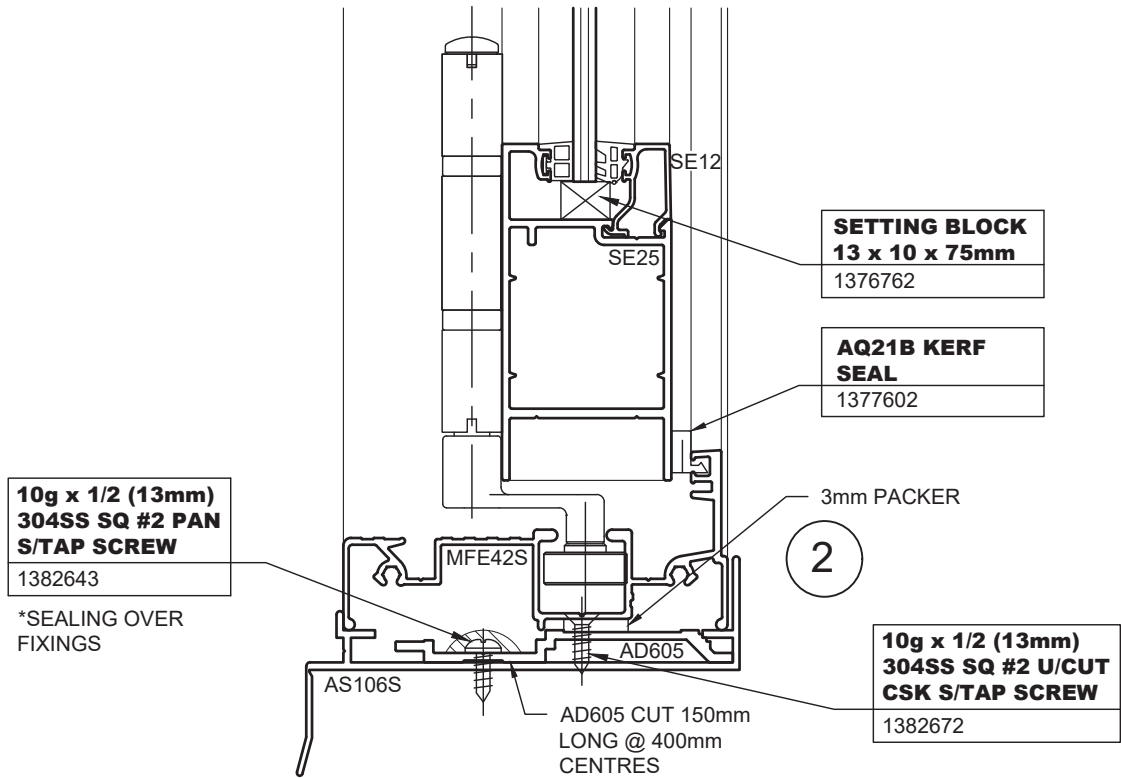
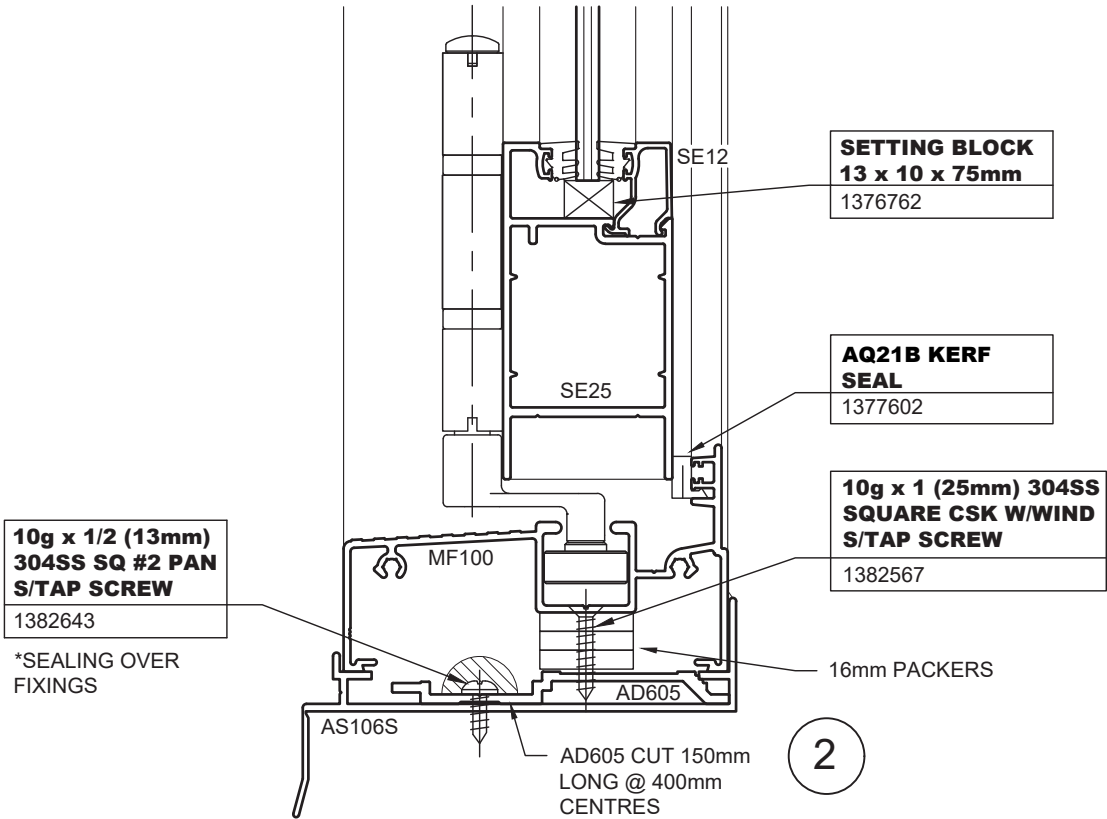


8. Typical Details

Typical Flat Threshold

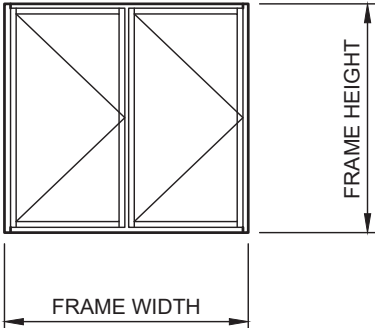


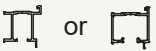
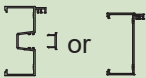
Optional Sill Details



9. Cutting Formulas

2 Left or 2 Right



PROFILE	SECTION NO.	DESCRIPTION	CUTTING FORMULA	QTY
	MFE1	Head	Frame Width - 89mm	1
	MFE42S	Sill	Frame Width - 89mm	1
	MFET2 or MEFT3	Track	Frame Width - 92mm	1
	SE25	Top & Bottom Rails	Frame Width / 2 - 202mm	4
	SE12	Rail Bead	Frame Width / 2 - 202mm	4
	MFE55 / ME8 or MFE25	Jambs	Frame Height	2
	SE70	Door Stile	Frame Height - 118mm	4
GLASS	HEIGHT		Frame Height - 276mm	2
	WIDTH		Frame Width / 2 - 182mm	

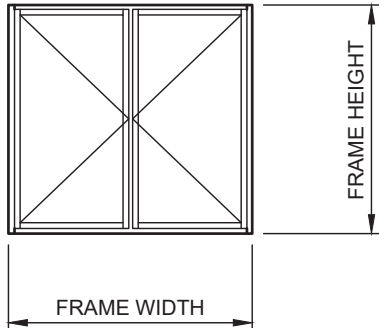
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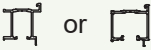
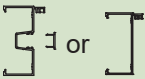
WHEN USING MF100 HIGH PERFORMANCE SILL				
PROFILE	SECTION NO.	DESCRIPTION	CUTTING FORMULA	QTY
	SE70	Door Stiles	Frame Height - 131mm	4
GLASS	HEIGHT		Frame Height - 277mm	2

WHEN USING MF22 SUB SILL				
PROFILE	SECTION NO.	DESCRIPTION	CUTTING FORMULA	QTY
	SE70	Door Stiles	Frame Height - 120mm	4
GLASS	HEIGHT		Frame Height - 266mm	2

9. Cutting Formulas

1 Left 1 Right



PROFILE	SECTION NO.	DESCRIPTION	CUTTING FORMULA	QTY
	MFE1	Head	Frame Width - 89mm	1
	MFE42S	Sill	Frame Width - 89mm	1
	MFET2 or MEFT3	Track	Frame Width - 92mm	1
	SE25	Top & Bottom Rails	Frame Width / 2 - 202mm	4
	SE12	Rail Bead	Frame Width / 2 - 202mm	4
	MFE55 / ME8 or MFE25	Jambs	Frame Height	2
	SE70	Door Stile	Frame Height - 118mm	4
	AD29	Meeting Stile Adaptor	Frame Height - 118mm	1
GLASS	HEIGHT		Frame Height - 276mm	2
	WIDTH		Frame Width / 2 - 182mm	

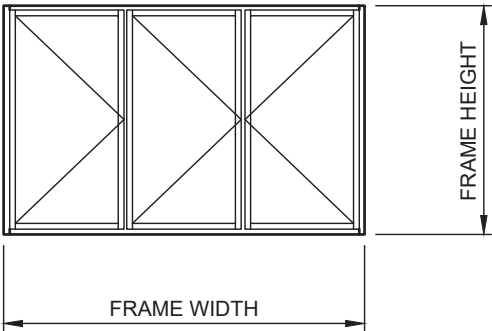
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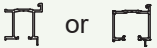
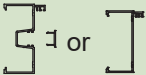
WHEN USING MF100 HIGH PERFORMANCE SILL				
PROFILE	SECTION NO.	DESCRIPTION	CUTTING FORMULA	QTY
	SE70	Door Stiles	Frame Height - 131mm	4
GLASS	HEIGHT		Frame Height - 277mm	2

WHEN USING MF22 SUB SILL				
PROFILE	SECTION NO.	DESCRIPTION	CUTTING FORMULA	QTY
	SE70	Door Stiles	Frame Height - 120mm	4
GLASS	HEIGHT		Frame Height - 266mm	2

9. Cutting Formulas

2 Left 1 Right or 1 Left 2 Right



PROFILE	SECTION NO.	DESCRIPTION	CUTTING FORMULA	QTY
	MFE1	Head	Frame Width - 89mm	1
	MFE42S	Sill	Frame Width - 89mm	1
	MFET2 or MEFT3	Track	Frame Width - 92mm	1
	SE25	Top & Bottom Rails	Frame Width / 3 - 186mm	6
	SE12	Rail Bead	Frame Width / 3 - 186mm	6
	MFE55 / ME8 or MFE25	Jambs	Frame Height	2
	SE70	Door Stile	Frame Height - 118mm	6
	AD29	Meeting Stile Adaptor	Frame Height - 118mm	1
GLASS	HEIGHT		Frame Height - 276mm	3
	WIDTH		Frame Width / 3 - 166mm	

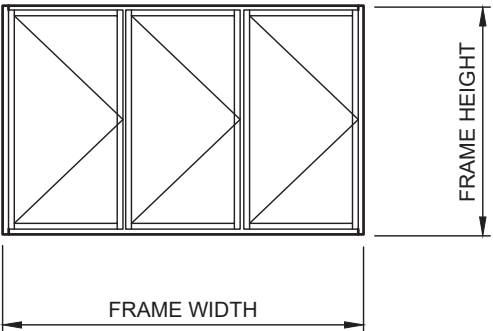
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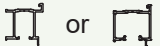
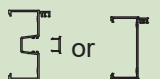
WHEN USING MF100 HIGH PERFORMANCE SILL				
PROFILE	SECTION NO.	DESCRIPTION	CUTTING FORMULA	QTY
	SE70	Door Stiles	Frame Height - 131mm	6
GLASS	HEIGHT		Frame Height - 277mm	3

WHEN USING MF22 SUB SILL				
PROFILE	SECTION NO.	DESCRIPTION	CUTTING FORMULA	QTY
	SE70	Door Stiles	Frame Height - 120mm	6
GLASS	HEIGHT		Frame Height - 266mm	3

9. Cutting Formulas

3 Left or 3 Right



PROFILE	SECTION NO.	DESCRIPTION	CUTTING FORMULA	QTY
	MFE1	Head	Frame Width - 89mm	1
	MFE42S	Sill	Frame Width - 89mm	1
	MFET2 or MEFT3	Track	Frame Width - 92mm	1
	SE25	Top & Bottom Rails	Frame Width / 3 - 186mm	6
	SE12	Rail Bead	Frame Width / 3 - 186mm	6
	MFE55 / ME8 or MFE25	Jambs	Frame Height	2
	SE70	Door Stile	Frame Height - 118mm	6
GLASS	HEIGHT		Frame Height - 276mm	3
	WIDTH		Frame Width / 3 - 166mm	

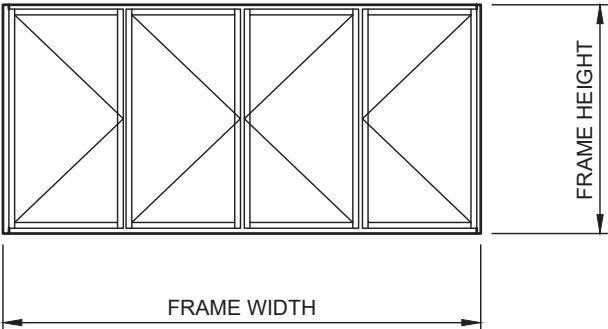
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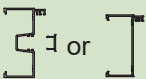
WHEN USING MF100 HIGH PERFORMANCE SILL				
PROFILE	SECTION NO.	DESCRIPTION	CUTTING FORMULA	QTY
	SE70	Door Stiles	Frame Height - 131mm	6
GLASS	HEIGHT		Frame Height - 277mm	3

WHEN USING MF22 SUB SILL				
PROFILE	SECTION NO.	DESCRIPTION	CUTTING FORMULA	QTY
	SE70	Door Stiles	Frame Height - 120mm	6
GLASS	HEIGHT		Frame Height - 266mm	3

9. Cutting Formulas

2 Left 2 Right - E2A Hardware



PROFILE	SECTION NO.	DESCRIPTION	CUTTING FORMULA	QTY
	MFE1	Head	Frame Width - 89mm	1
	MFE42S	Sill	Frame Width - 89mm	1
	MFET2	Track	Frame Width - 92mm	1
	SE25	Top & Bottom Rails	Frame Width / 4 - 178mm	8
	SE12	Rail Bead	Frame Width / 4 - 178mm	8
	MFE55 / ME8 or MFE25	Jambs	Frame Height	2
	SE70	Door Stile	Frame Height - 118mm	8
GLASS	HEIGHT		Frame Height - 276mm	4
	WIDTH		Frame Width / 4 - 158mm	

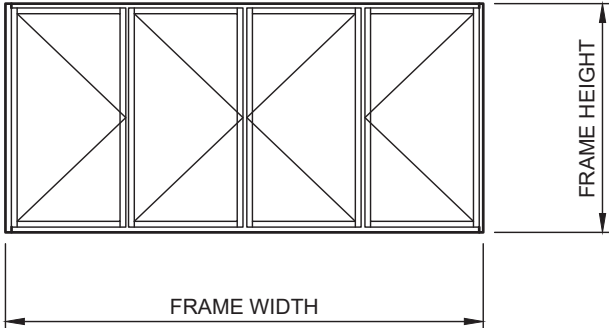
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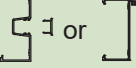
WHEN USING MF100 HIGH PERFORMANCE SILL				
PROFILE	SECTION NO.	DESCRIPTION	CUTTING FORMULA	QTY
	SE70	Door Stiles	Frame Height - 131mm	8
GLASS	HEIGHT		Frame Height - 277mm	4

WHEN USING MF22 SUB SILL				
PROFILE	SECTION NO.	DESCRIPTION	CUTTING FORMULA	QTY
	SE70	Door Stiles	Frame Height - 120mm	8
GLASS	HEIGHT		Frame Height - 266mm	4

9. Cutting Formulas

2 Left 2 Right - E3A Hardware



PROFILE	SECTION NO.	DESCRIPTION	CUTTING FORMULA	QTY
	MFE1	Head	Frame Width - 89mm	1
	MFE42S	Sill	Frame Width - 89mm	1
	MFET3	Track	Frame Width - 92mm	1
	SE25	Top & Bottom Rails	Frame Width / 4 - 179mm	8
	SE12	Rail Bead	Frame Width / 4 - 179mm	8
	MFE55 / ME8 or MFE25	Jambs	Frame Height	2
	SE70	Door Stile	Frame Height - 118mm	8
GLASS	HEIGHT		Frame Height - 276mm	4
	WIDTH		Frame Width / 4 - 159mm	

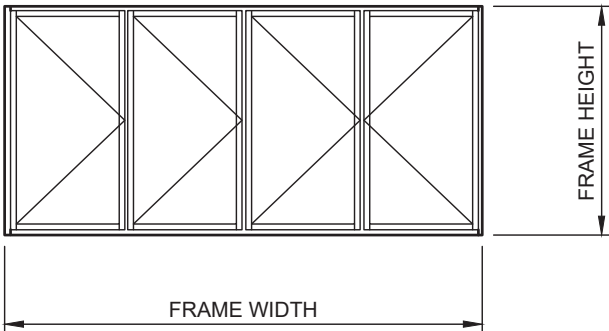
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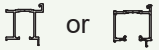
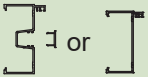
WHEN USING MF100 HIGH PERFORMANCE SILL				
PROFILE	SECTION NO.	DESCRIPTION	CUTTING FORMULA	QTY
	SE70	Door Stiles	Frame Height - 131mm	8
GLASS	HEIGHT		Frame Height - 277mm	4

WHEN USING MF22 SUB SILL				
PROFILE	SECTION NO.	DESCRIPTION	CUTTING FORMULA	QTY
	SE70	Door Stiles	Frame Height - 120mm	8
GLASS	HEIGHT		Frame Height - 266mm	4

9. Cutting Formulas

3 Left 1 Right or 1 Left 3 Right



PROFILE	SECTION NO.	DESCRIPTION	CUTTING FORMULA	QTY
	MFE1	Head	Frame Width - 89mm	1
	MFE42S	Sill	Frame Width - 89mm	1
	MFET2 or MEFT3	Track	Frame Width - 92mm	1
	SE25	Top & Bottom Rails	Frame Width / 4 - 178mm	8
	SE12	Rail Bead	Frame Width / 4 - 178mm	8
	MFE55 / ME8 or MFE25	Jambs	Frame Height	2
	SE70	Door Stile	Frame Height - 118mm	8
	AD29	Meeting Stile Adaptor	Frame Height - 118mm	1
GLASS	HEIGHT		Frame Height - 276mm	4
	WIDTH		Frame Width / 4 - 158mm	

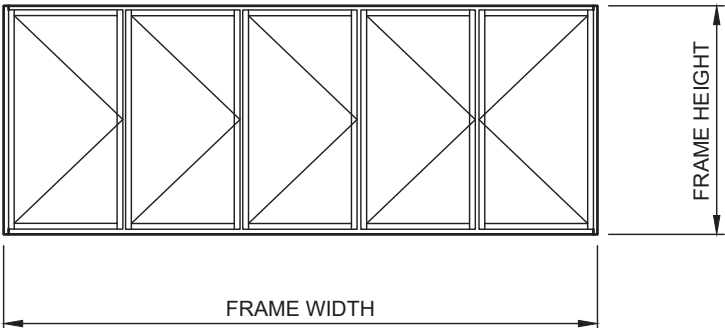
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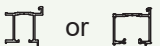
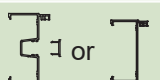
WHEN USING MF100 HIGH PERFORMANCE SILL				
PROFILE	SECTION NO.	DESCRIPTION	CUTTING FORMULA	QTY
	SE70	Door Stiles	Frame Height - 131mm	8
GLASS	HEIGHT		Frame Height - 277mm	4

WHEN USING MF22 SUB SILL				
PROFILE	SECTION NO.	DESCRIPTION	CUTTING FORMULA	QTY
	SE70	Door Stiles	Frame Height - 120mm	8
GLASS	HEIGHT		Frame Height - 266mm	4

9. Cutting Formulas

4 Left 1 Right or 1 Left 4 Right



PROFILE	SECTION NO.	DESCRIPTION	CUTTING FORMULA	QTY
	MFE1	Head	Frame Width - 89mm	1
	MFE42S	Sill	Frame Width - 89mm	1
	MFET2 or MEFT3	Track	Frame Width - 92mm	1
	SE25	Top & Bottom Rails	Frame Width / 5 - 173mm	10
	SE12	Rail Bead	Frame Width / 5 - 173mm	10
	MFE55 / ME8 or MFE25	Jambs	Frame Height	2
	SE70	Door Stile	Frame Height - 118mm	10
	AD29	Meeting Stile Adaptor	Frame Height - 118mm	1
GLASS	HEIGHT		Frame Height - 276mm	5
	WIDTH		Frame Width / 5 - 153mm	

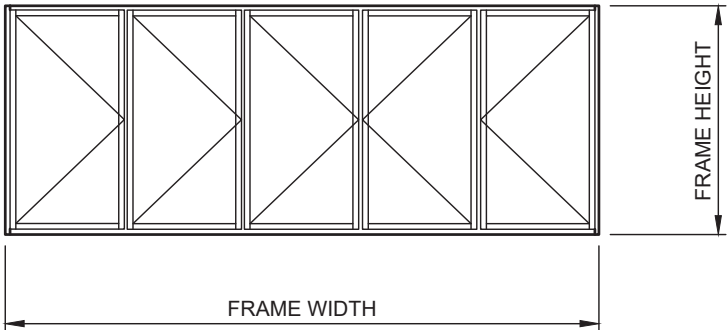
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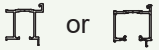
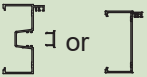
WHEN USING MF100 HIGH PERFORMANCE SILL				
PROFILE	SECTION NO.	DESCRIPTION	CUTTING FORMULA	QTY
	SE70	Door Stiles	Frame Height - 131mm	10
GLASS	HEIGHT		Frame Height - 277mm	5

WHEN USING MF22 SUB SILL				
PROFILE	SECTION NO.	DESCRIPTION	CUTTING FORMULA	QTY
	SE70	Door Stiles	Frame Height - 120mm	10
GLASS	HEIGHT		Frame Height - 266mm	5

9. Cutting Formulas

3 Left 2 Right or 3 Left 2 Right



PROFILE	SECTION NO.	DESCRIPTION	CUTTING FORMULA	QTY
	MFE1	Head	Frame Width - 89mm	1
	MFE42S	Sill	Frame Width - 89mm	1
	MFET2 or MEFT3	Track	Frame Width - 92mm	1
	SE25	Top & Bottom Rails	Frame Width / 5 - 173mm	10
	SE12	Rail Bead	Frame Width / 5 - 173mm	10
	MFE55 / ME8 or MFE25	Jambs	Frame Height	2
	SE70	Door Stile	Frame Height - 118mm	10
	AD29	Meeting Stile Adaptor	Frame Height - 118mm	1
GLASS	HEIGHT		Frame Height - 276mm	5
	WIDTH		Frame Width / 5 - 153mm	

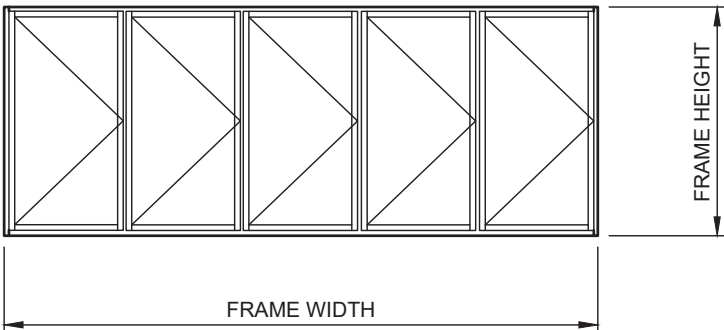
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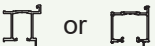
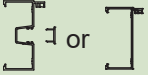
WHEN USING MF100 HIGH PERFORMANCE SILL				
PROFILE	SECTION NO.	DESCRIPTION	CUTTING FORMULA	QTY
	SE70	Door Stiles	Frame Height - 131mm	10
GLASS	HEIGHT		Frame Height - 277mm	5

WHEN USING MF22 SUB SILL				
PROFILE	SECTION NO.	DESCRIPTION	CUTTING FORMULA	QTY
	SE70	Door Stiles	Frame Height - 120mm	10
GLASS	HEIGHT		Frame Height - 266mm	5

9. Cutting Formulas

5 Left or 5 Right



PROFILE	SECTION NO.	DESCRIPTION	CUTTING FORMULA	QTY
	MFE1	Head	Frame Width - 89mm	1
	MFE42S	Sill	Frame Width - 89mm	1
	MFET2 or MEFT3	Track	Frame Width - 92mm	1
	SE25	Top & Bottom Rails	Frame Width / 5 - 173mm	10
	SE12	Rail Bead	Frame Width / 5 - 173mm	10
	MFE55 / ME8 or MFE25	Jambs	Frame Height	2
	SE70	Door Stile	Frame Height - 118mm	10
GLASS	HEIGHT		Frame Height - 276mm	5
	WIDTH		Frame Width / 5 - 153mm	

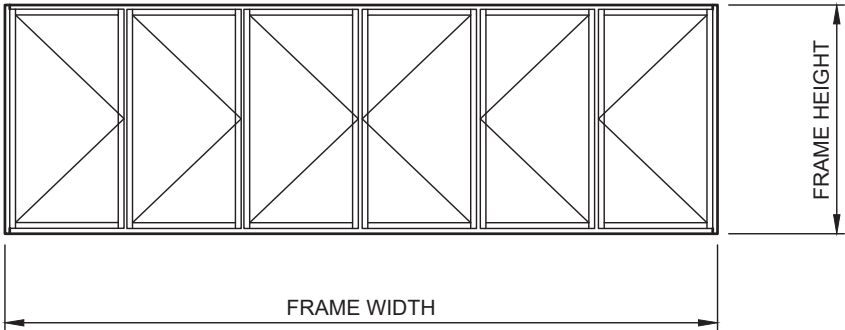
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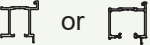
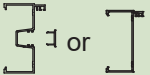
WHEN USING MF100 HIGH PERFORMANCE SILL				
PROFILE	SECTION NO.	DESCRIPTION	CUTTING FORMULA	QTY
	SE70	Door Stiles	Frame Height - 131mm	10
GLASS	HEIGHT		Frame Height - 277mm	5

WHEN USING MF22 SUB SILL				
PROFILE	SECTION NO.	DESCRIPTION	CUTTING FORMULA	QTY
	SE70	Door Stiles	Frame Height - 120mm	10
GLASS	HEIGHT		Frame Height - 266mm	5

9. Cutting Formulas

3 Left 3 Right



PROFILE	SECTION NO.	DESCRIPTION	CUTTING FORMULA	QTY
	MFE1	Head	Frame Width - 89mm	1
	MFE42S	Sill	Frame Width - 89mm	1
	MFET2 or MEFT3	Track	Frame Width - 92mm	1
	SE25	Top & Bottom Rails	Frame Width / 6 - 170mm	12
	SE12	Rail Bead	Frame Width / 6 - 170mm	12
	MFE55 / ME8 or MFE25	Jambs	Frame Height	2
	SE70	Door Stile	Frame Height - 118mm	12
	AD29	Meeting Stile Adaptor	Frame Height - 118mm	1
GLASS	HEIGHT		Frame Height - 276mm	6
	WIDTH		Frame Width / 6 - 150mm	

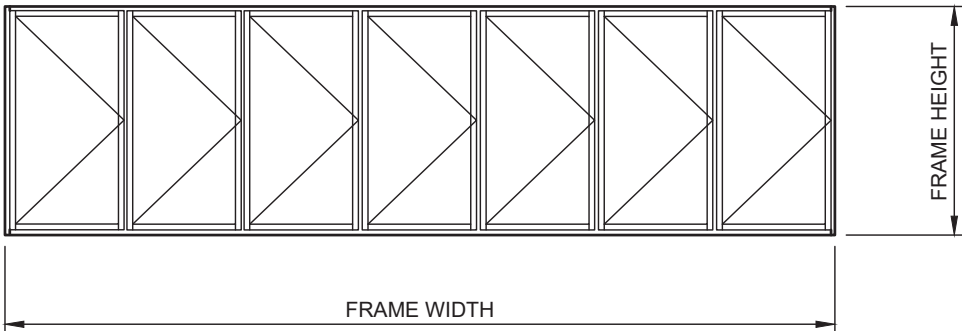
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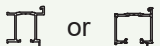
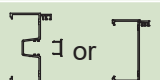
WHEN USING MF100 HIGH PERFORMANCE SILL				
PROFILE	SECTION NO.	DESCRIPTION	CUTTING FORMULA	QTY
	SE70	Door Stiles	Frame Height - 131mm	12
GLASS	HEIGHT		Frame Height - 277mm	6

WHEN USING MF22 SUB SILL				
PROFILE	SECTION NO.	DESCRIPTION	CUTTING FORMULA	QTY
	SE70	Door Stiles	Frame Height - 120mm	12
GLASS	HEIGHT		Frame Height - 266mm	6

9. Cutting Formulas

7 Left or 7 Right



PROFILE	SECTION NO.	DESCRIPTION	CUTTING FORMULA	QTY
	MFE1	Head	Frame Width - 89mm	1
	MFE42S	Sill	Frame Width - 89mm	1
	MFET2 or MEFT3	Track	Frame Width - 92mm	1
	SE25	Top & Bottom Rails	Frame Width / 7 - 168mm	14
	SE12	Rail Bead	Frame Width / 7 - 168mm	14
	MFE55 / ME8 or MFE25	Jambs	Frame Height	2
	SE70	Door Stile	Frame Height - 118mm	14
GLASS	HEIGHT		Frame Height - 276mm	7
	WIDTH		Frame Width / 7 - 148mm	

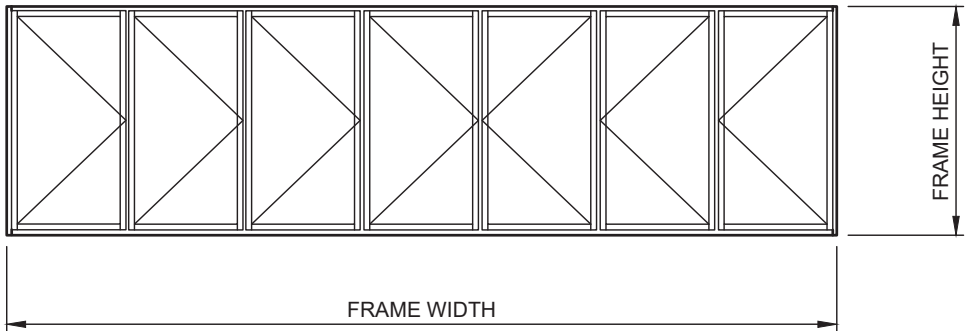
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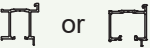
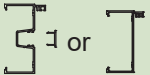
WHEN USING MF100 HIGH PERFORMANCE SILL				
PROFILE	SECTION NO.	DESCRIPTION	CUTTING FORMULA	QTY
	SE70	Door Stiles	Frame Height - 131mm	14
GLASS	HEIGHT		Frame Height - 277mm	7

WHEN USING MF22 SUB SILL				
PROFILE	SECTION NO.	DESCRIPTION	CUTTING FORMULA	QTY
	SE70	Door Stiles	Frame Height - 120mm	14
GLASS	HEIGHT		Frame Height - 266mm	7

9. Cutting Formulas

4 Left 3 Right or 3 Left 4 Right



PROFILE	SECTION NO.	DESCRIPTION	CUTTING FORMULA	QTY
	MFE1	Head	Frame Width - 89mm	1
	MFE42S	Sill	Frame Width - 89mm	1
	MFET2 or MEFT3	Track	Frame Width - 92mm	1
	SE25	Top & Bottom Rails	Frame Width / 7 - 168mm	14
	SE12	Rail Bead	Frame Width / 7 - 168mm	14
	MFE55 / ME8 or MFE25	Jambs	Frame Height	2
	SE70	Door Stile	Frame Height - 118mm	14
	MFA29	MEET STILE ADAPTOR	Frame Height - 118mm	1
GLASS	HEIGHT		Frame Height - 276mm	7
	WIDTH		Frame Width / 7 - 148mm	

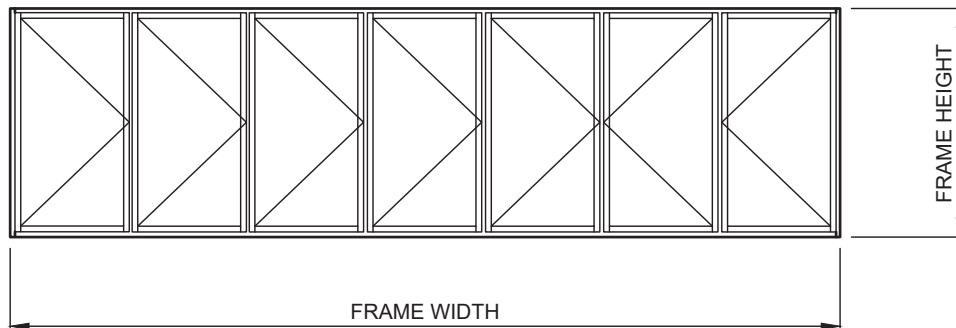
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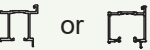
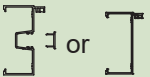
WHEN USING MF100 HIGH PERFORMANCE SILL				
PROFILE	SECTION NO.	DESCRIPTION	CUTTING FORMULA	QTY
	SE70	Door Stiles	Frame Height - 131mm	14
GLASS	HEIGHT		Frame Height - 277mm	7

WHEN USING MF22 SUB SILL				
PROFILE	SECTION NO.	DESCRIPTION	CUTTING FORMULA	QTY
	SE70	Door Stiles	Frame Height - 120mm	14
GLASS	HEIGHT		Frame Height - 266mm	7

9. Cutting Formulas

5 Left 2 Right or 2 Left 5 Right



PROFILE	SECTION NO.	DESCRIPTION	CUTTING FORMULA	QTY
	MFE1	Head	Frame Width - 89mm	1
	MFE42S	Sill	Frame Width - 89mm	1
	MFET2 or MEFT3	Track	Frame Width - 92mm	1
	SE25	Top & Bottom Rails	Frame Width / 7 - 168mm	14
	SE12	Rail Bead	Frame Width / 7 - 168mm	14
	MFE55 / ME8 or MFE25	Jambs	Frame Height	2
	SE70	Door Stile	Frame Height - 118mm	14
	MFA29	MEET STILE ADAPTOR	Frame Height - 118mm	1
GLASS	HEIGHT		Frame Height - 276mm	7
	WIDTH		Frame Width / 7 - 148mm	

Note:

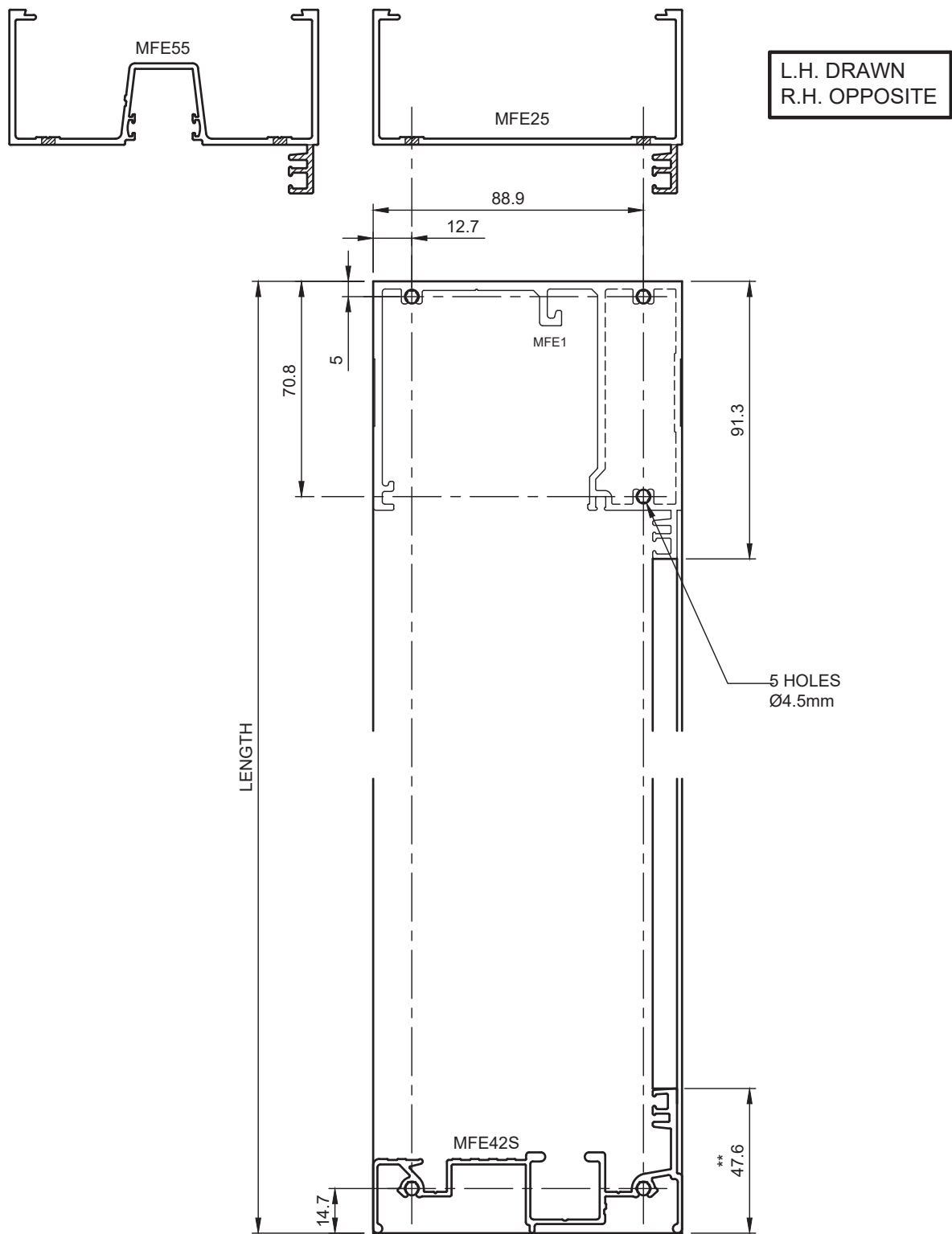
WHEN USING MF100 HIGH PERFORMANCE SILL

PROFILE	SECTION NO.	DESCRIPTION	CUTTING FORMULA	QTY
	SE70	Door Stiles	Frame Height - 131mm	14
GLASS	HEIGHT		Frame Height - 277mm	7

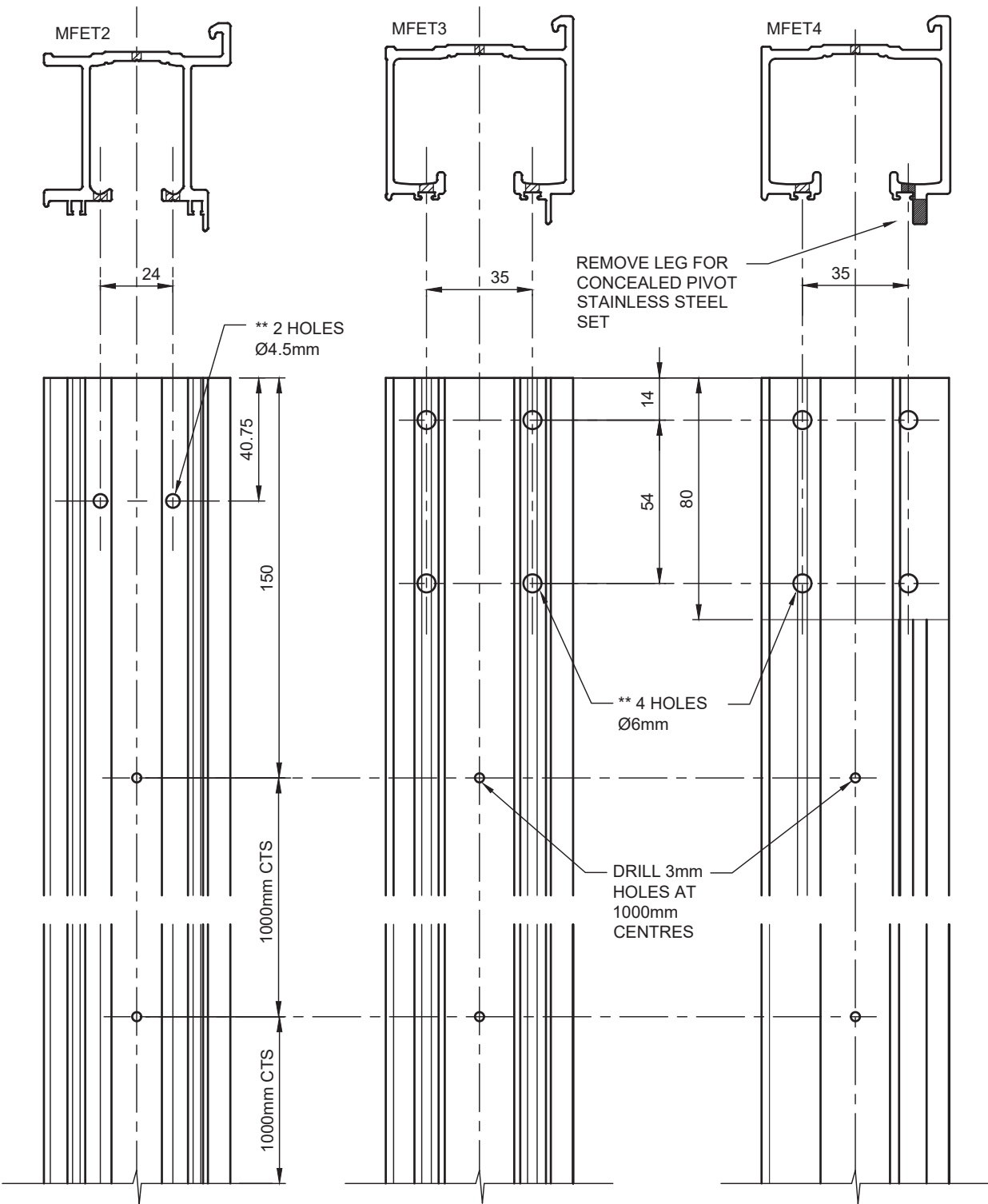
WHEN USING MF22 SUB SILL

PROFILE	SECTION NO.	DESCRIPTION	CUTTING FORMULA	QTY
	SE70	Door Stiles	Frame Height - 120mm	14
GLASS	HEIGHT		Frame Height - 266mm	7

Typical Jamb Preparation

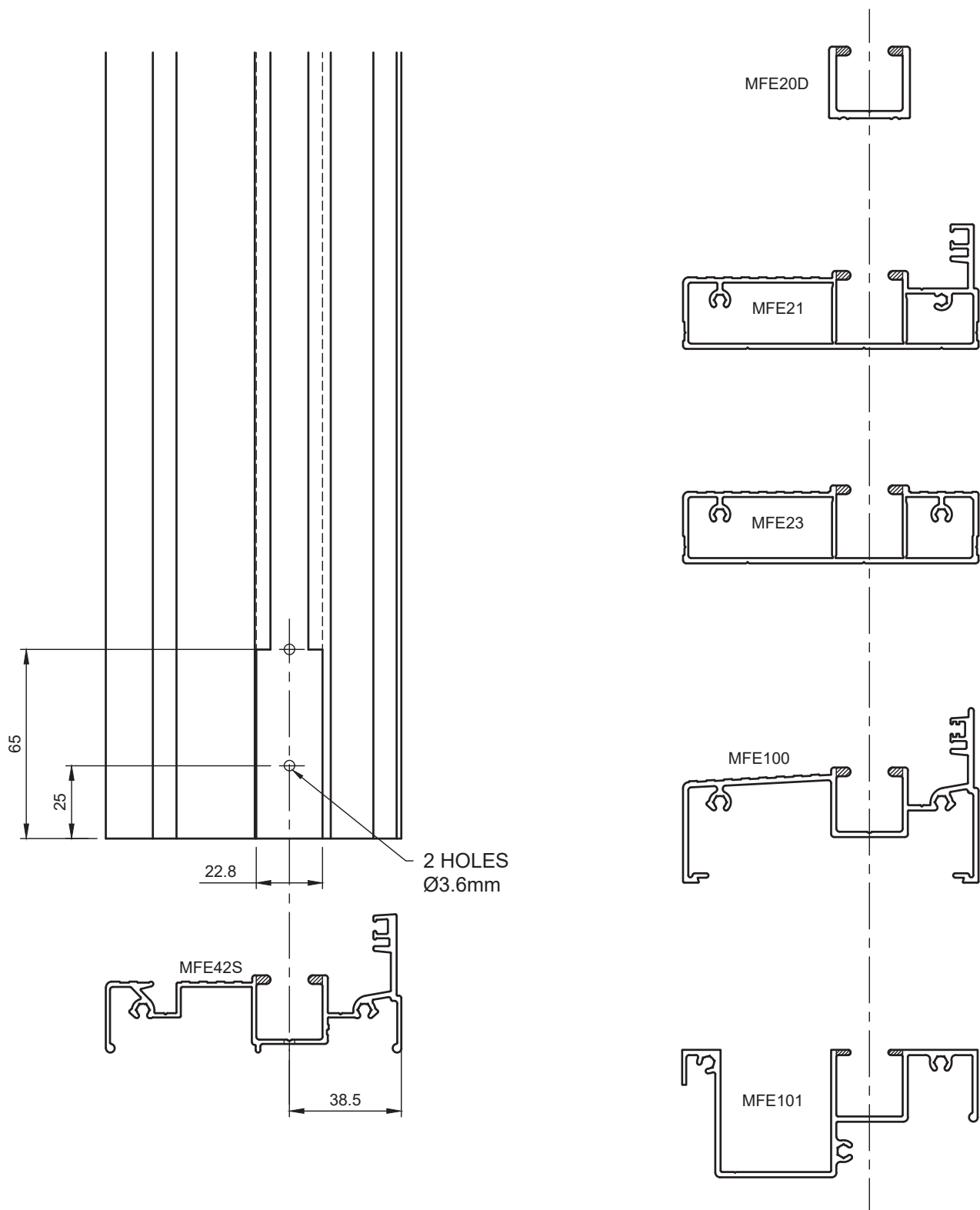


Track Preparation

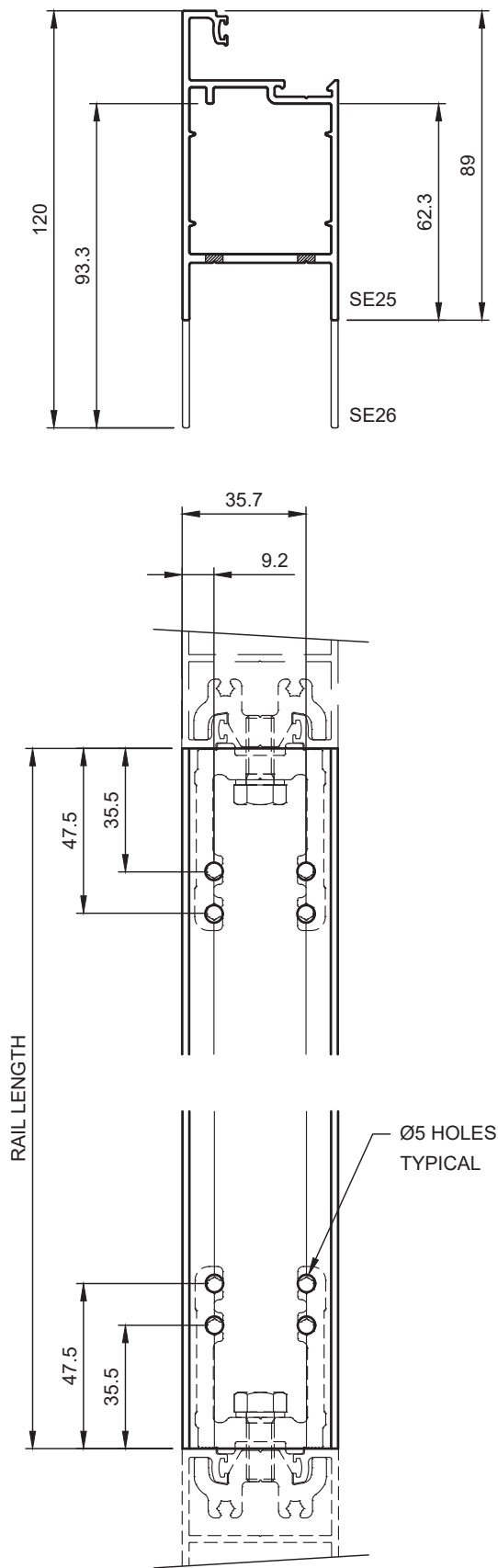


** DRILL THESE HOLES AT THE PIVOT END OF TRACK ONLY

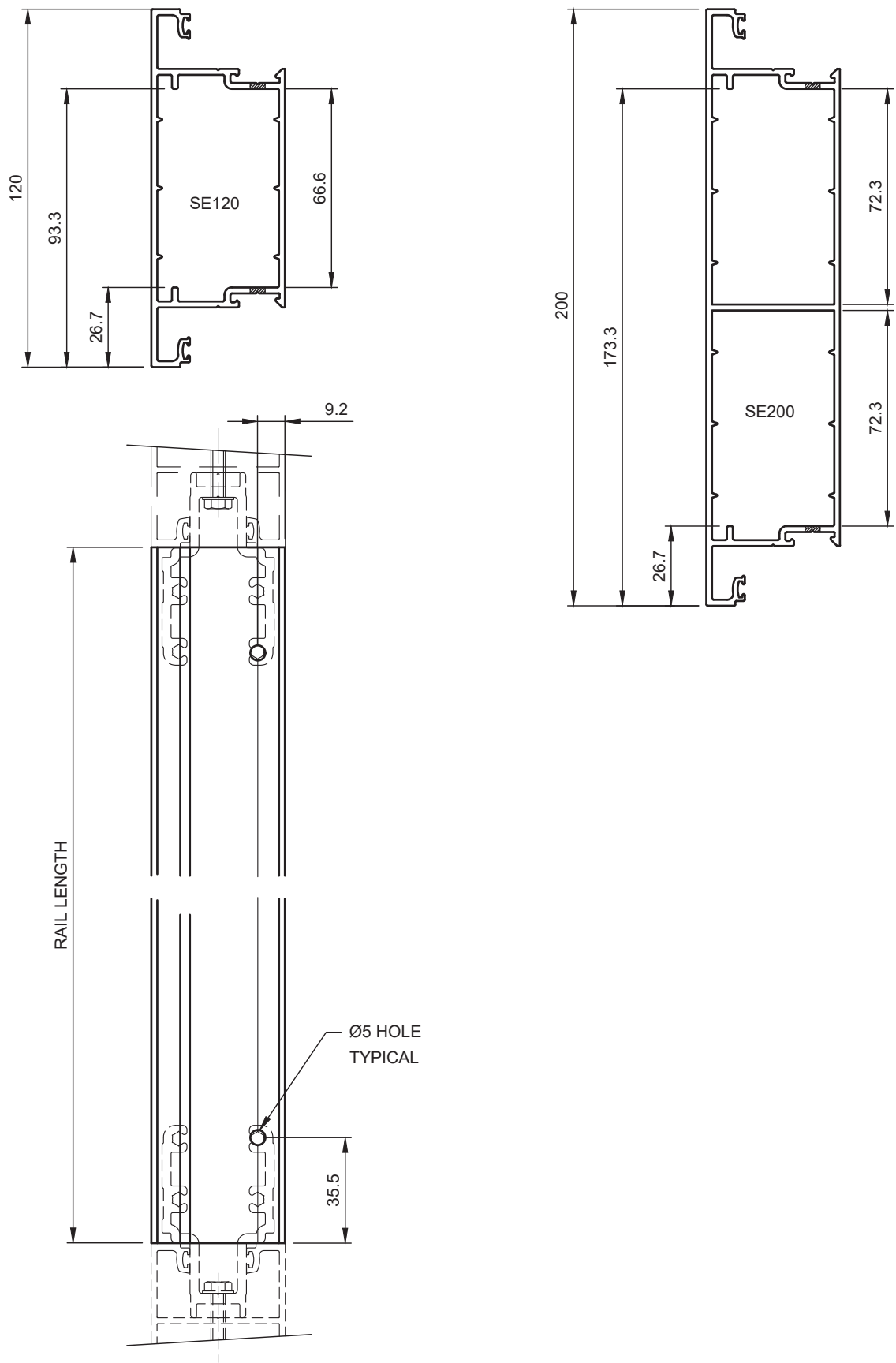
Pivot Machining Detail



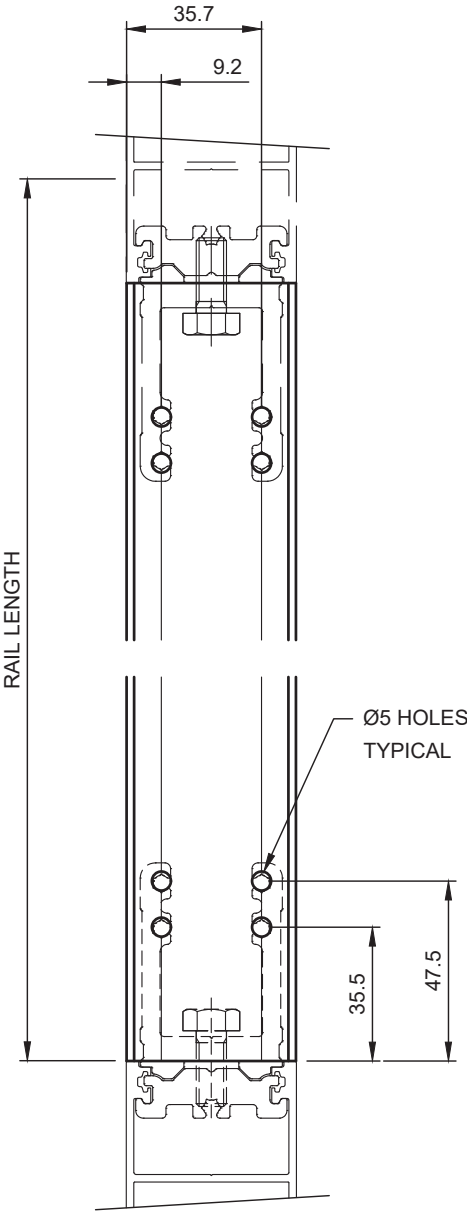
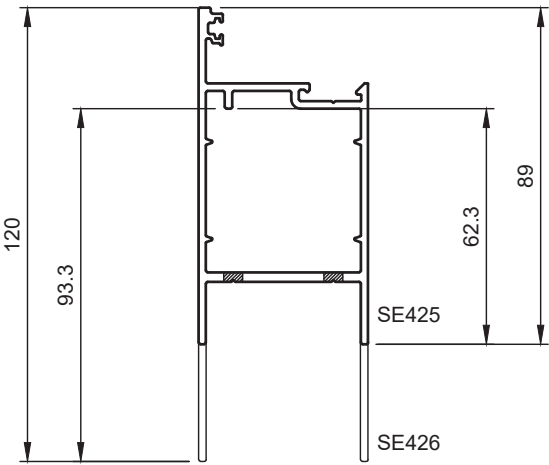
Top & Bottom Rail Preparation - Single Glazed



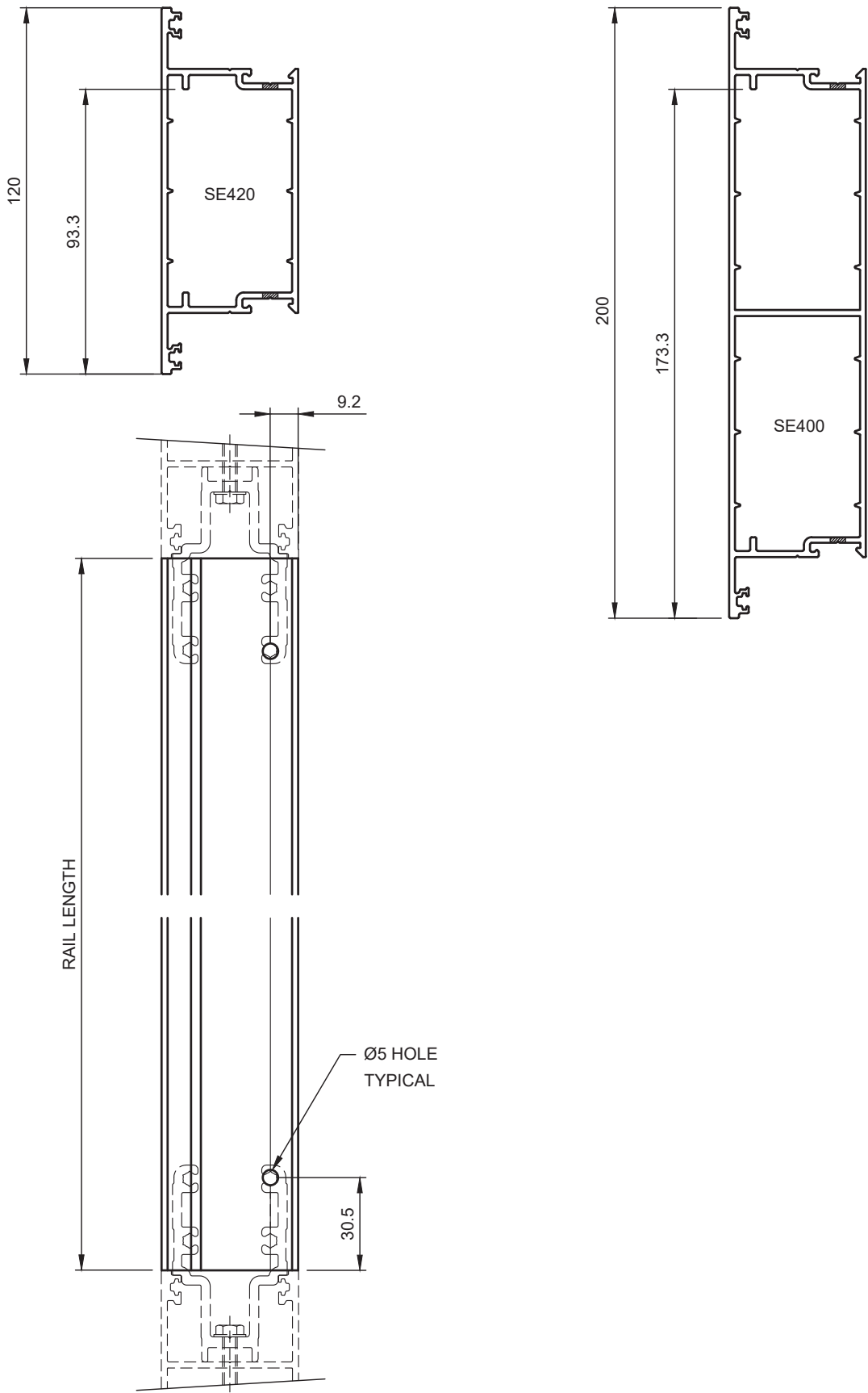
Midrail Preparation - Single Glazed



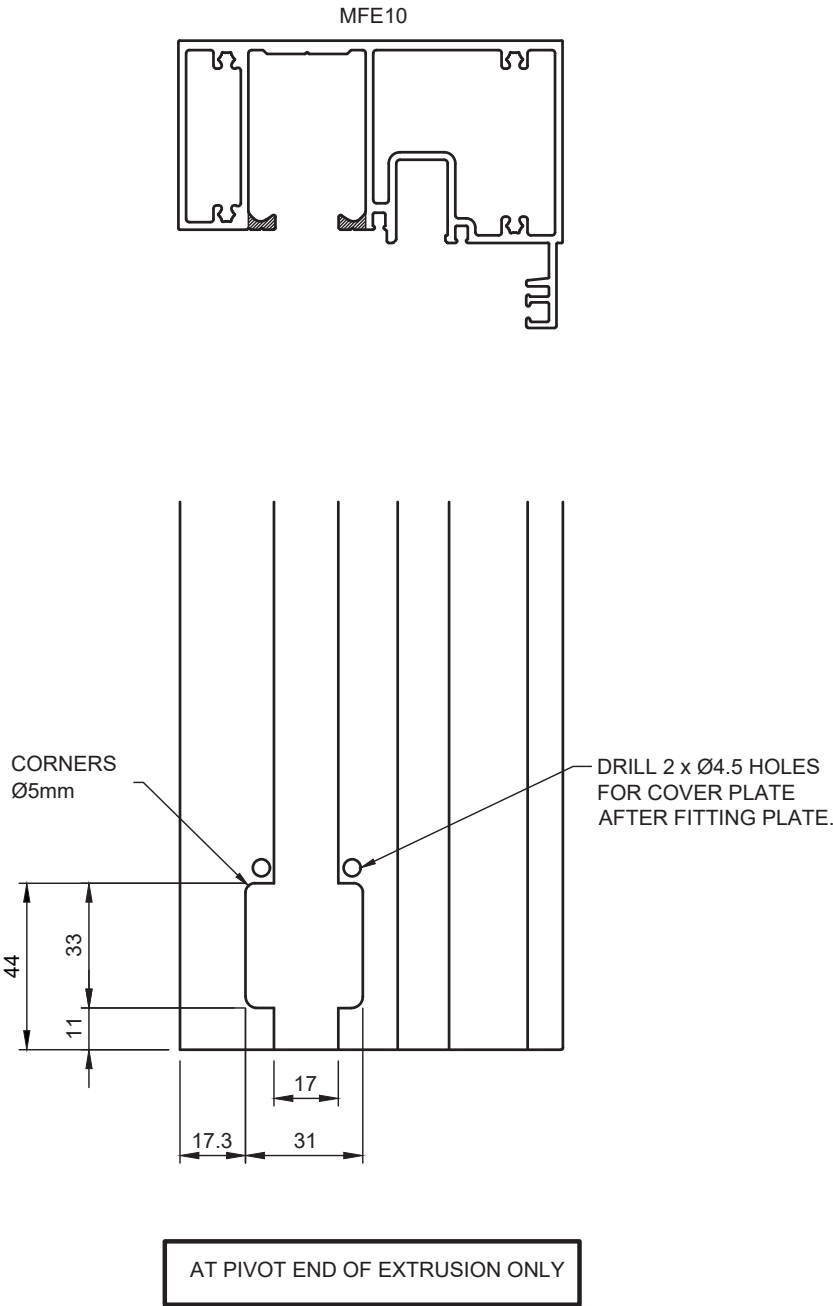
Top & Bottom Rail Preparation - Double Glazed



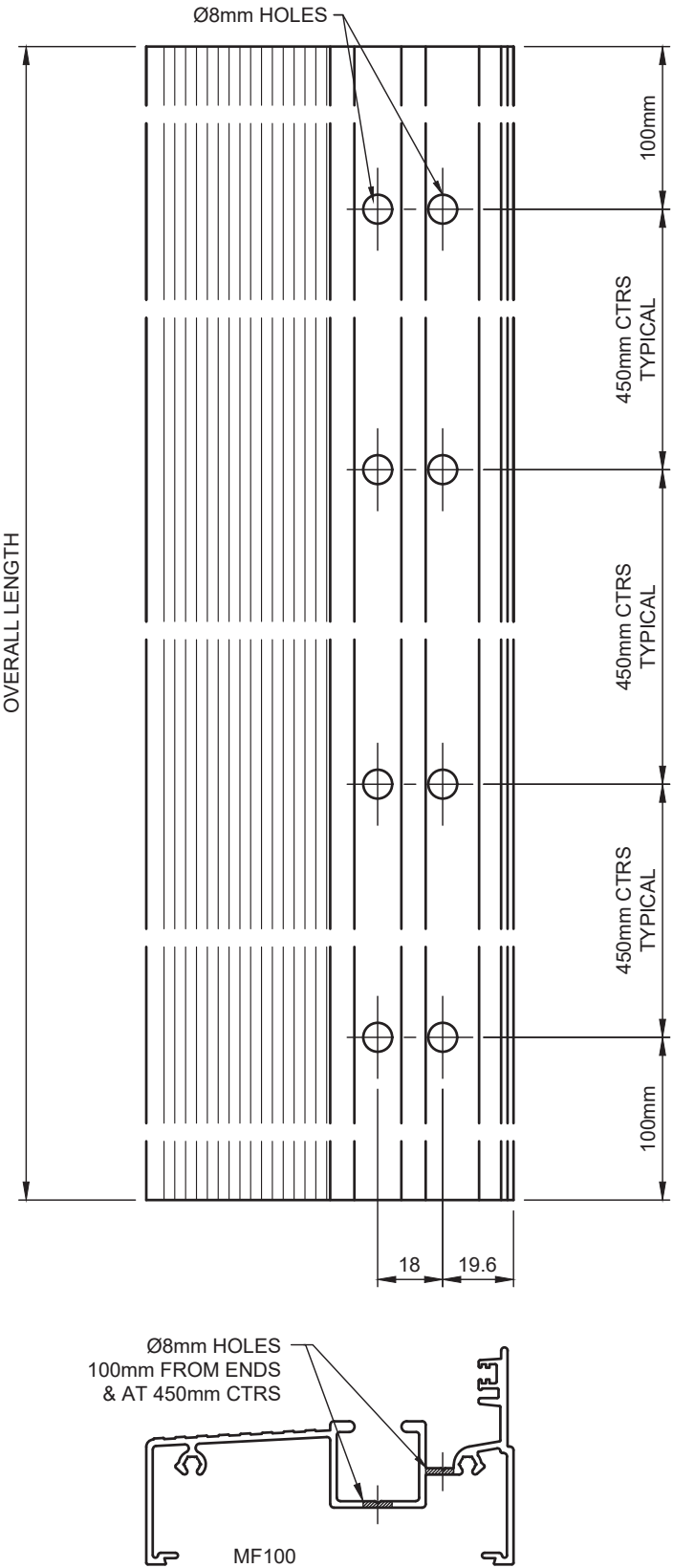
Midrail Preparation - Double Glazed



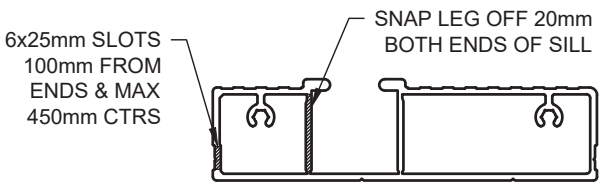
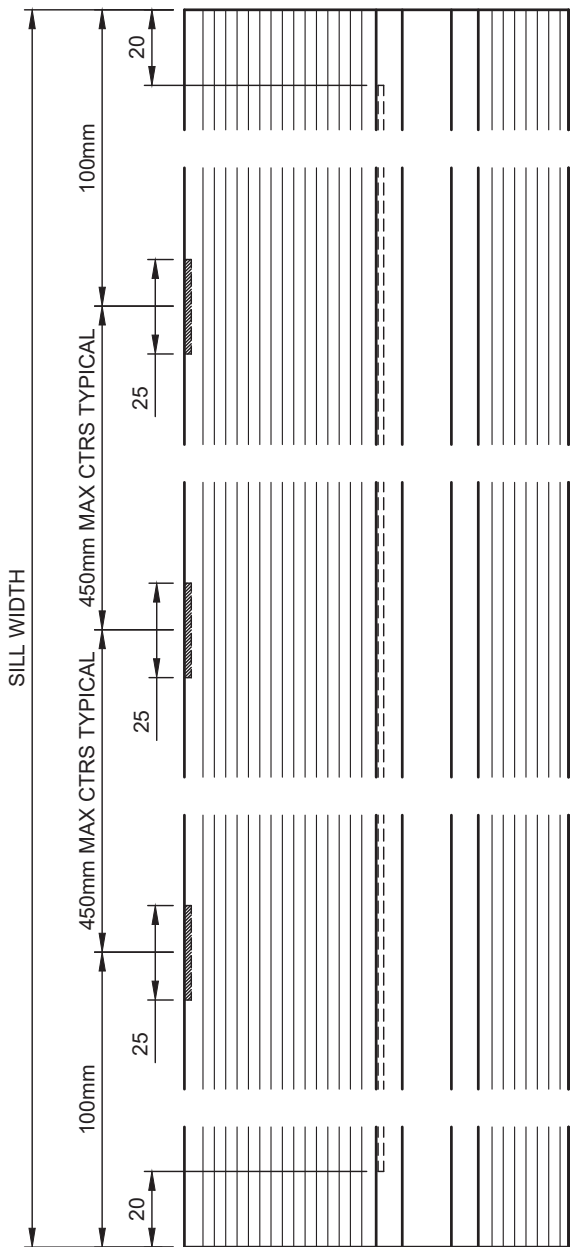
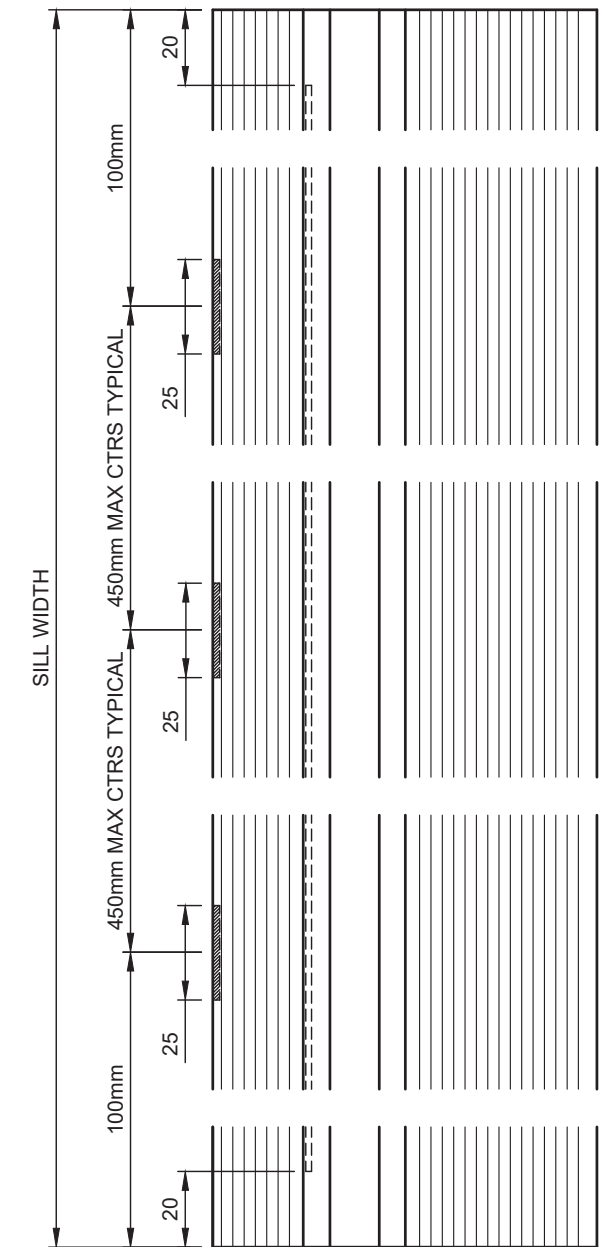
MFE10 Head Pivot Machining



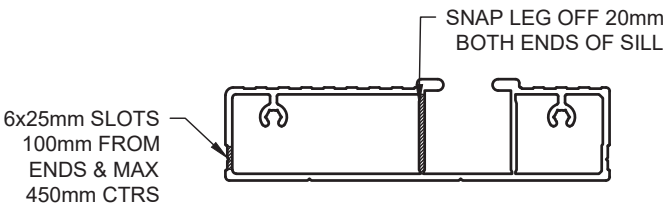
MF100 Sill Drainage



MFE23 Sill Drainage for Inward & Outward Opening Doors



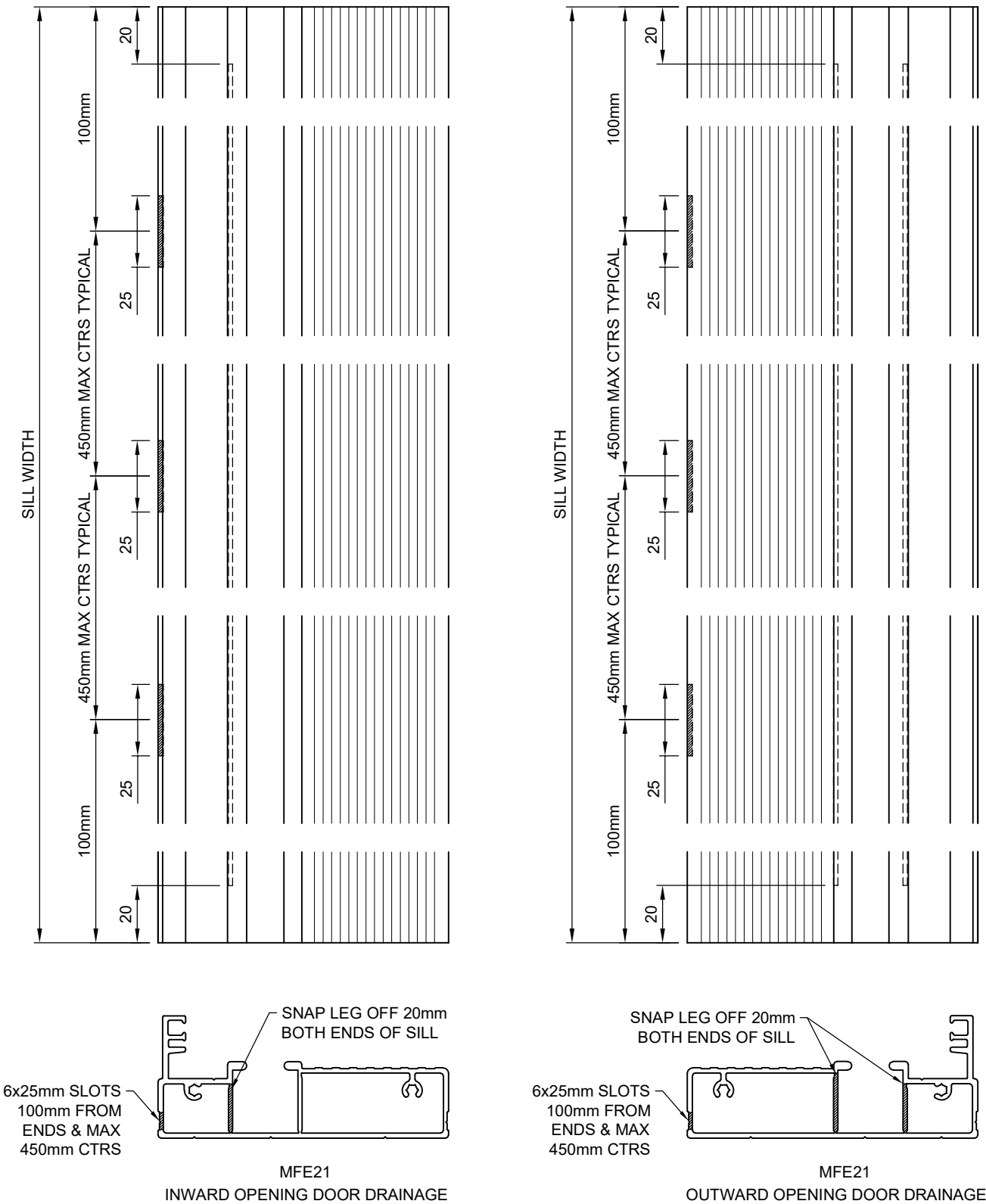
MFE23
INWARD OPENING DOOR DRAINAGE



MFE23
OUTWARD OPENING DOOR DRAINAGE

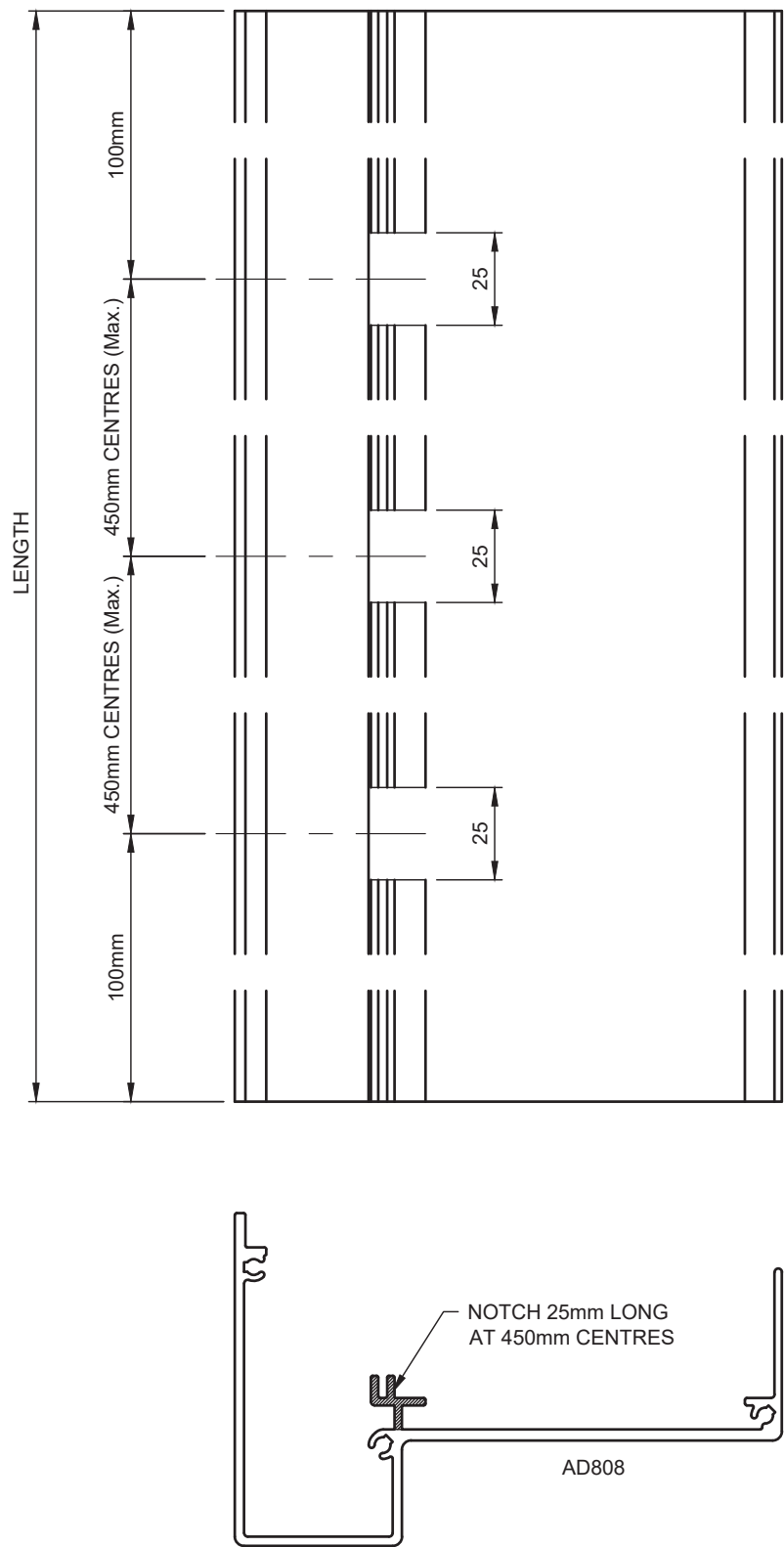
NOTE: ENSURE SMALL JOINT SEALANT IS USED BETWEEN SILL AND JAMB.

MFE21 Sill Drainage for Inward & Outward Opening Doors

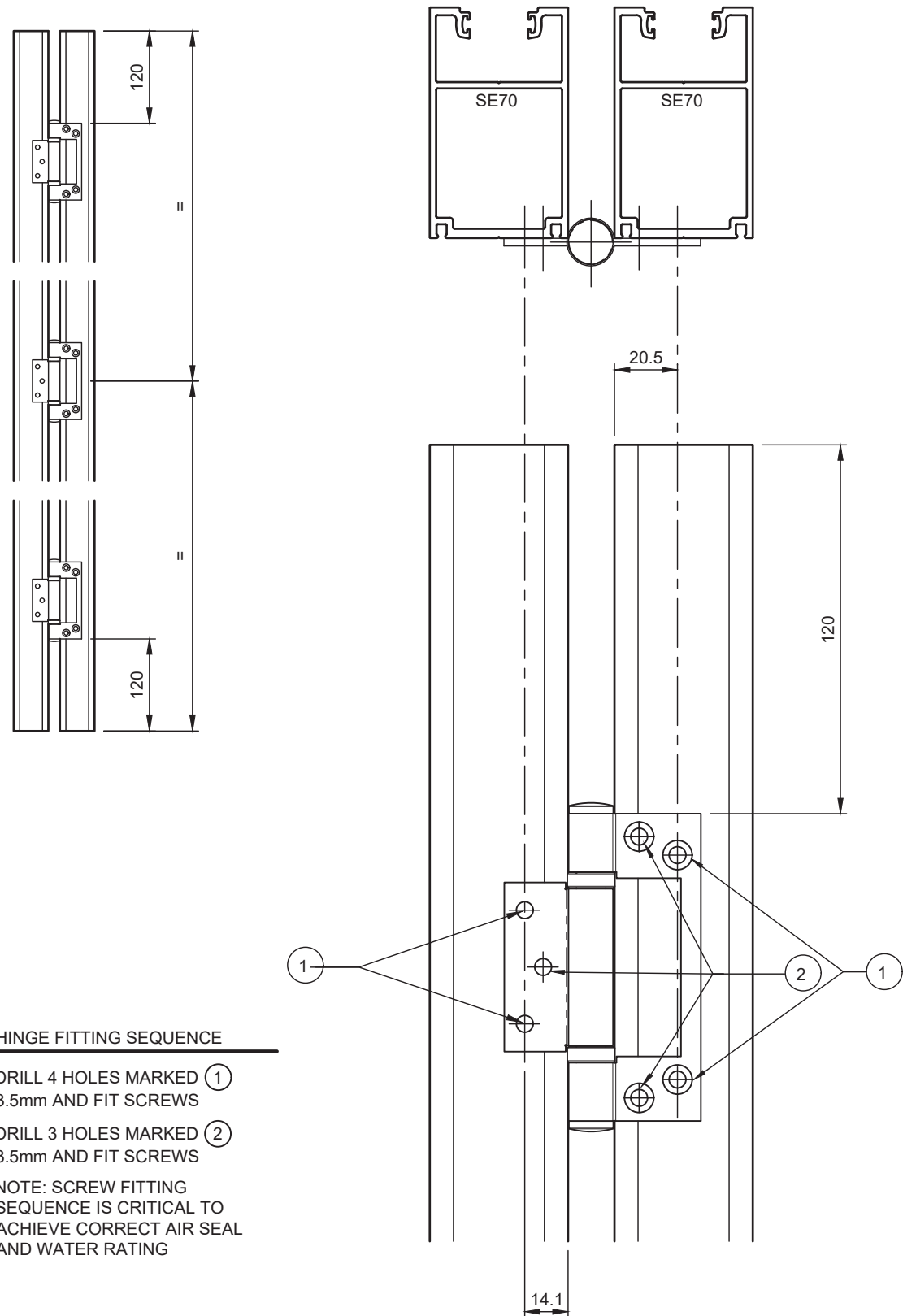


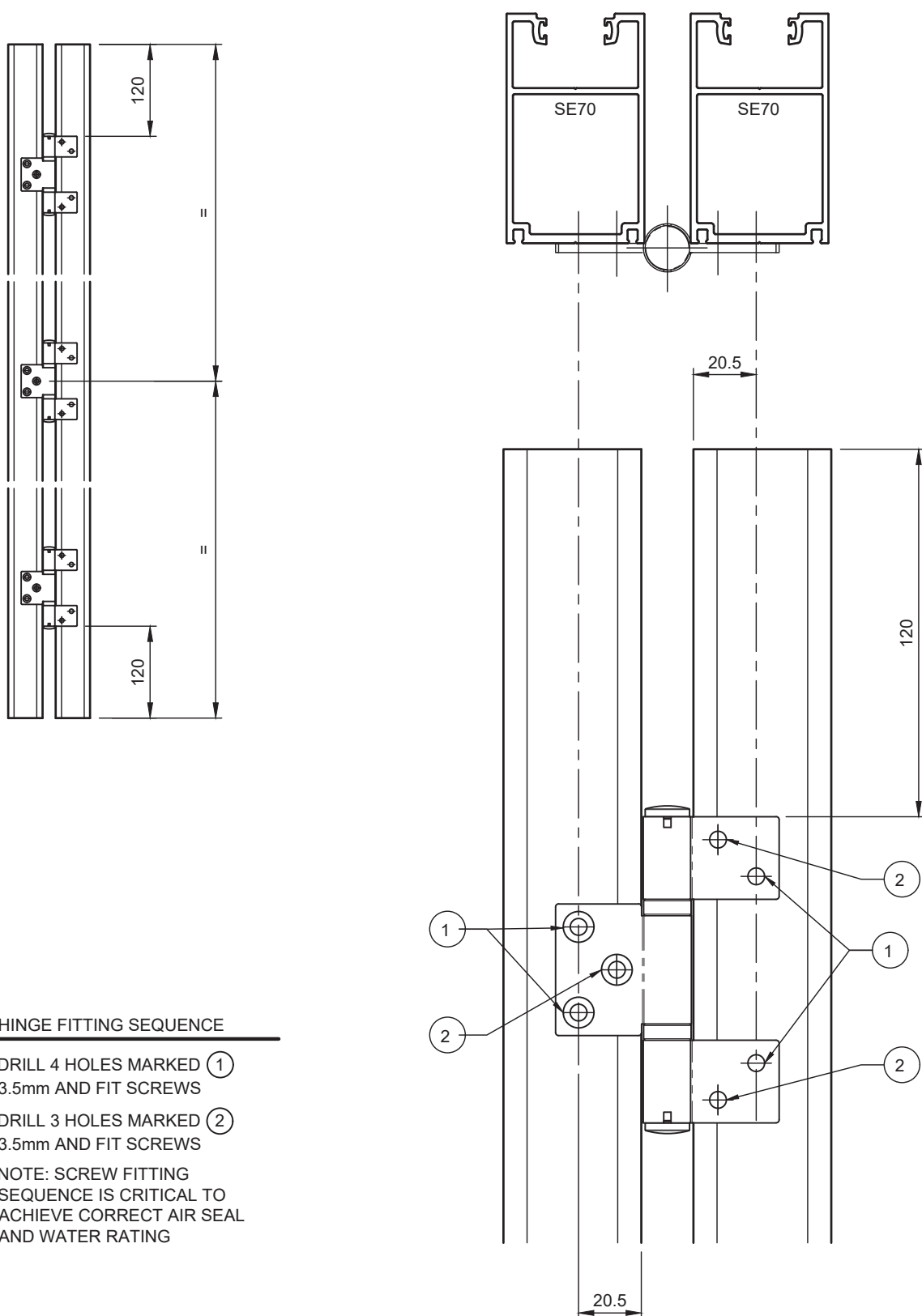
NOTE: ENSURE SMALL JOINT SEALANT IS USED BETWEEN SILL AND JAMB.

AD808 100mm Flush Grate Sill

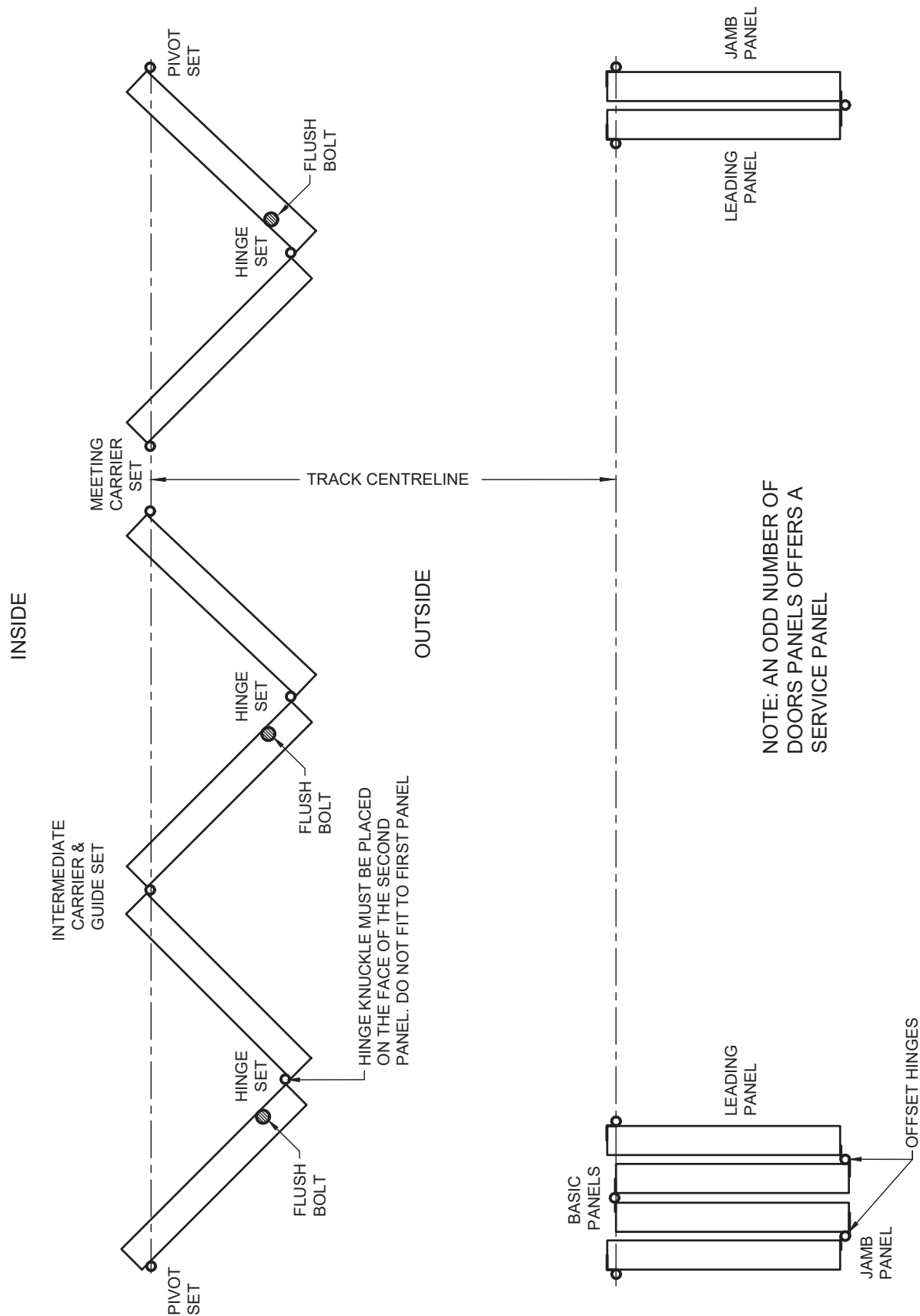


Typical Hinge Mounting Details - E2A + S/S



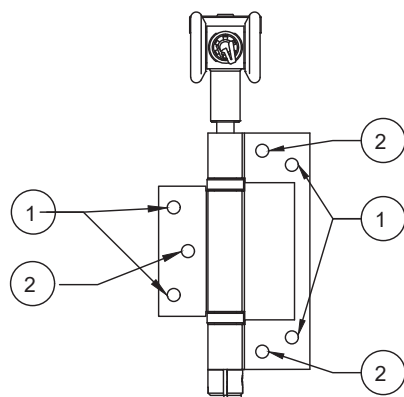
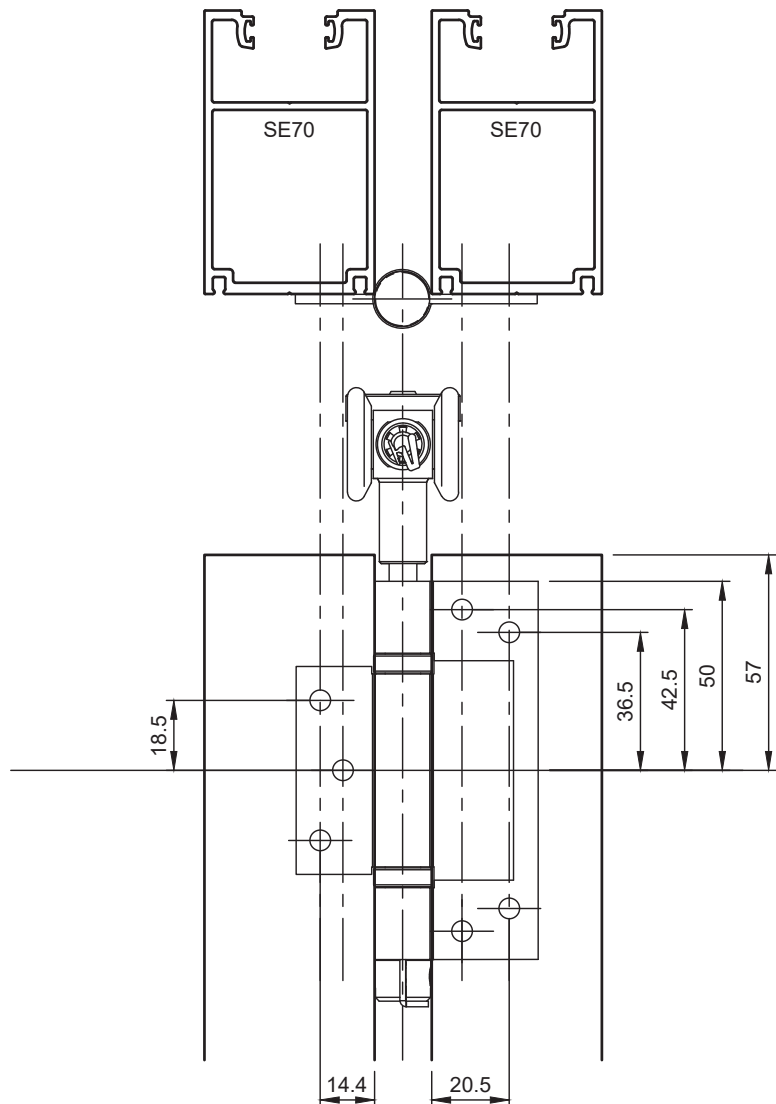
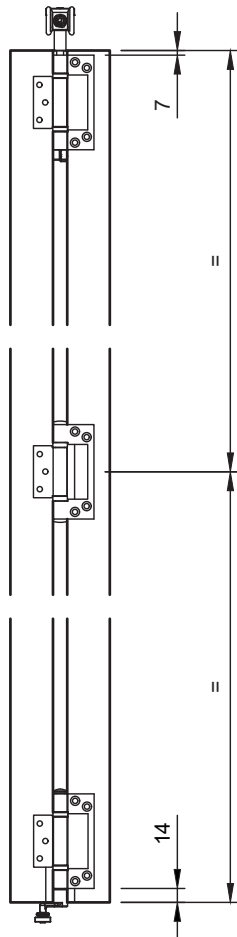


Outward Opening - Hardware Location & Panel Definitions



10. Manufacturing Details

Typical Pivot / Intermediate Hinge Mounting Details - E2A



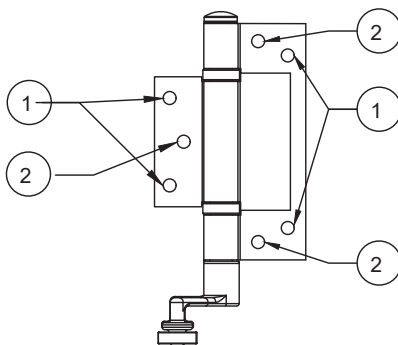
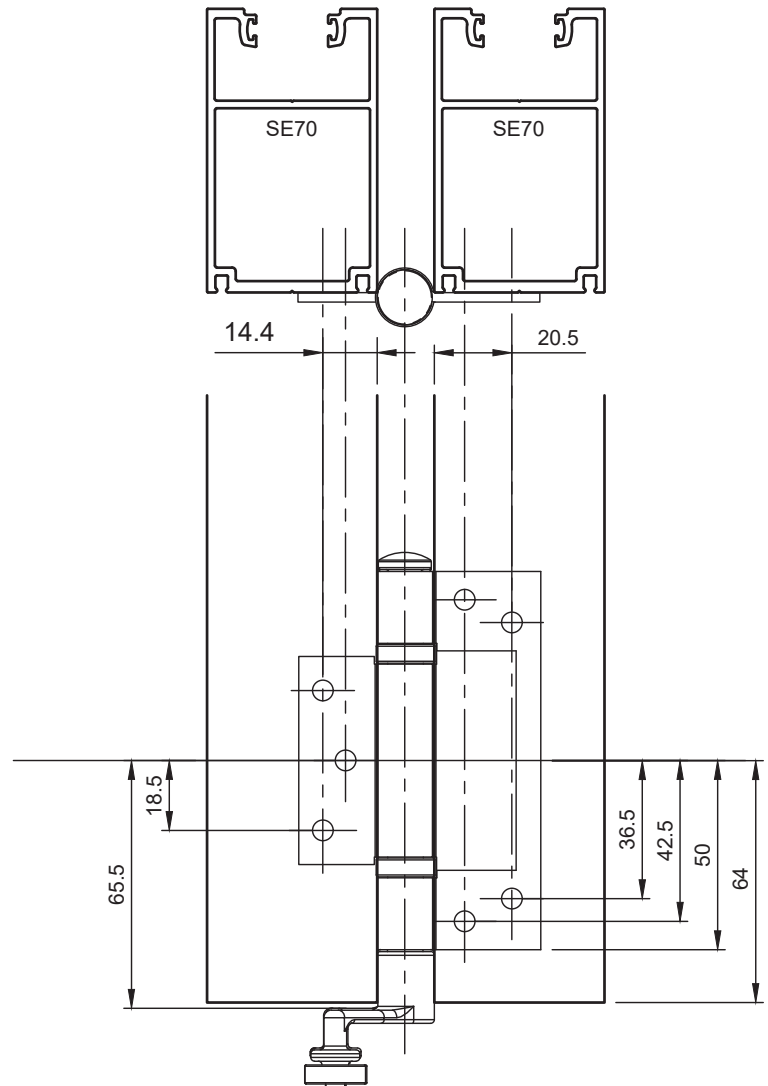
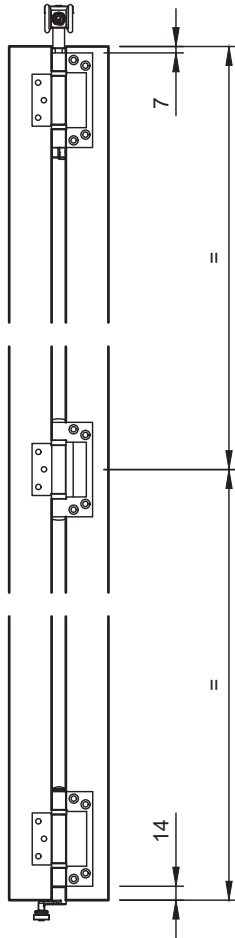
HINGE FITTING SEQUENCE

DRILL 4 HOLES MARKED ①
3.5mm AND FIT SCREWS

DRILL 3 HOLES MARKED ②
3.5mm AND FIT SCREWS

NOTE: SCREW FITTING
SEQUENCE IS CRITICAL TO
ACHIEVE CORRECT AIR SEAL
AND WATER RATING

Typical Pivot / Intermediate Hinge Mounting Details - E2A



HINGE FITTING SEQUENCE

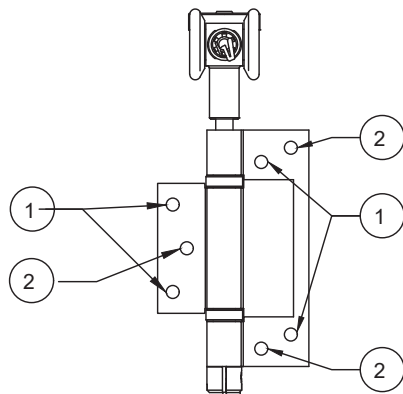
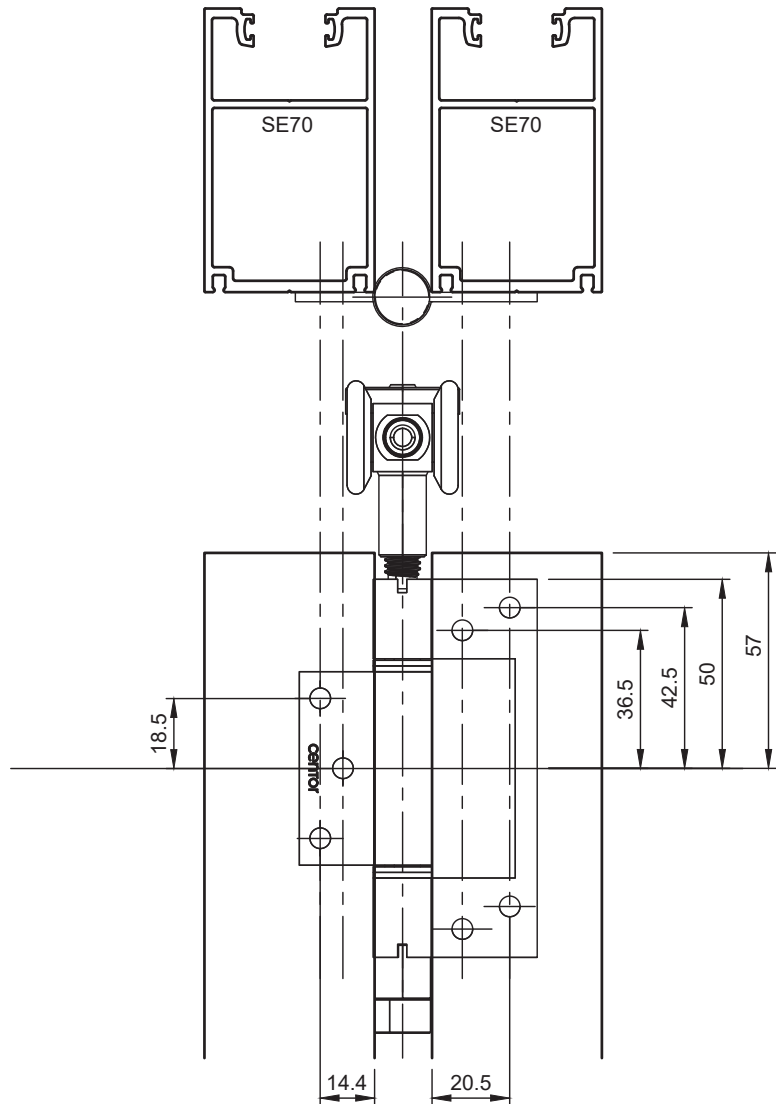
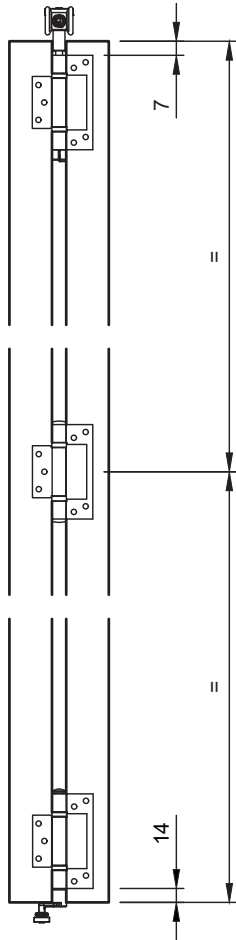
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3.5mm AND FIT SCREWS

DRILL 3 HOLES MARKED ②
3.5mm AND FIT SCREWS

NOTE: SCREW FITTING
SEQUENCE IS CRITICAL TO
ACHIEVE CORRECT AIR SEAL
AND WATER RATING

10. Manufacturing Details

Typical Pivot / Intermediate Hinge Mounting Details - E2A S/S



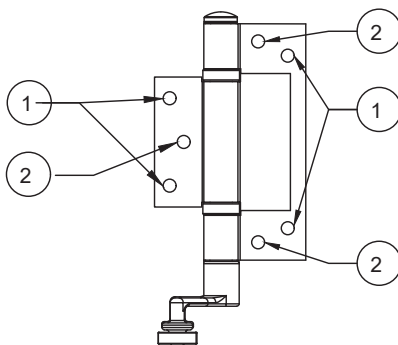
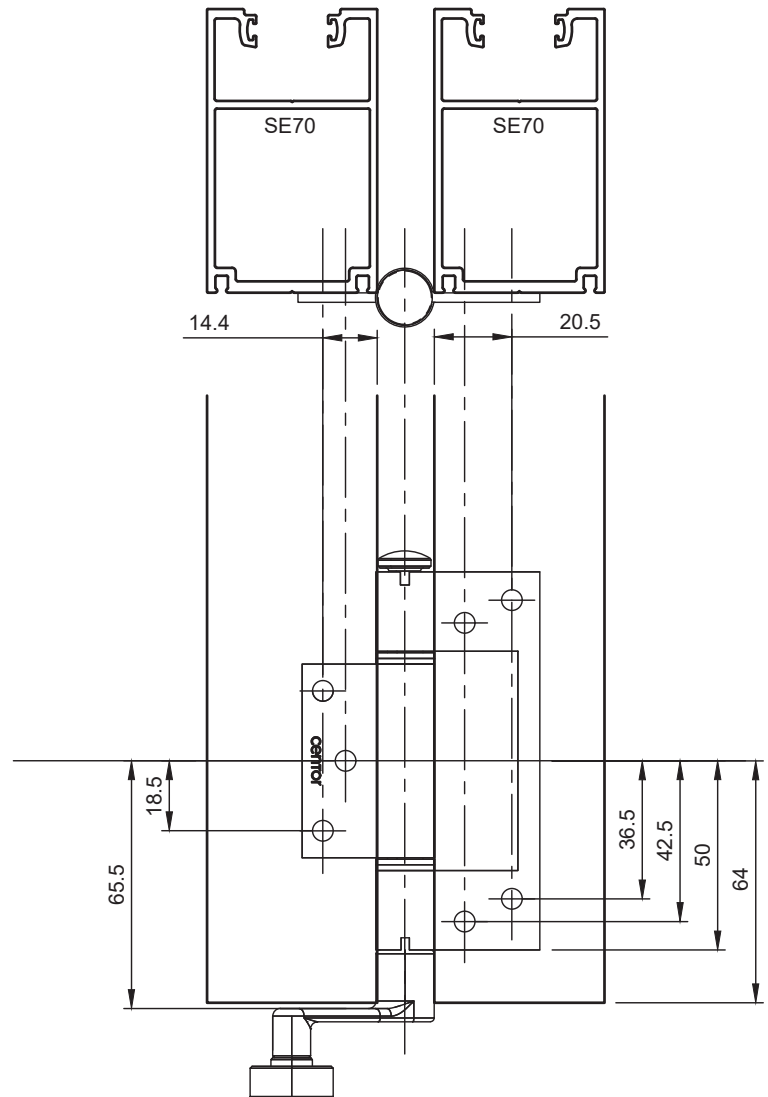
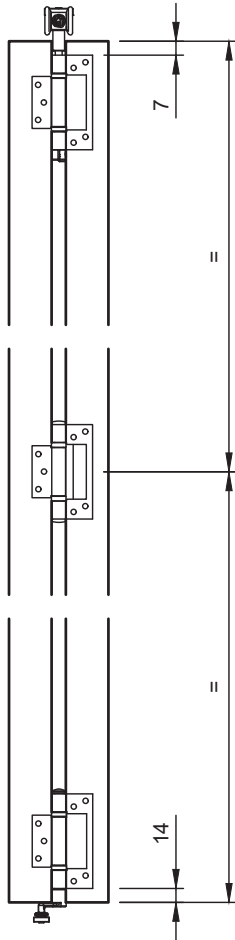
HINGE FITTING SEQUENCE

DRILL 4 HOLES MARKED ①
3.5mm AND FIT SCREWS

DRILL 3 HOLES MARKED ②
3.5mm AND FIT SCREWS

NOTE: SCREW FITTING
SEQUENCE IS CRITICAL TO
ACHIEVE CORRECT AIR SEAL
AND WATER RATING

Typical Pivot / Intermediate Hinge Mounting Details - E2A S/S



HINGE FITTING SEQUENCE

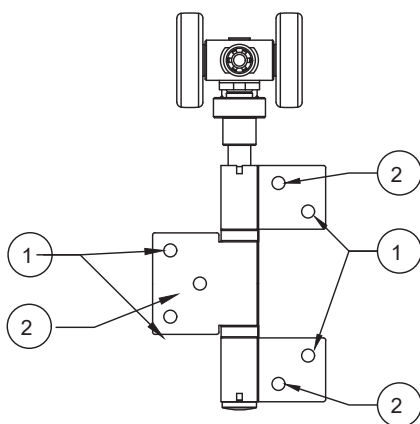
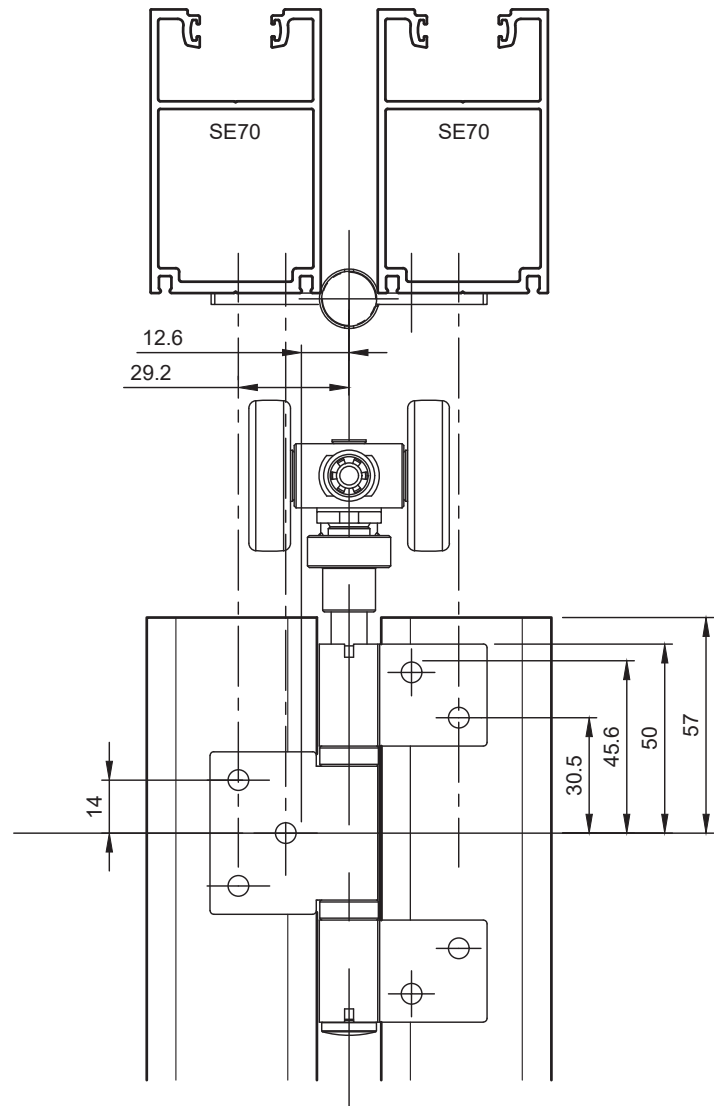
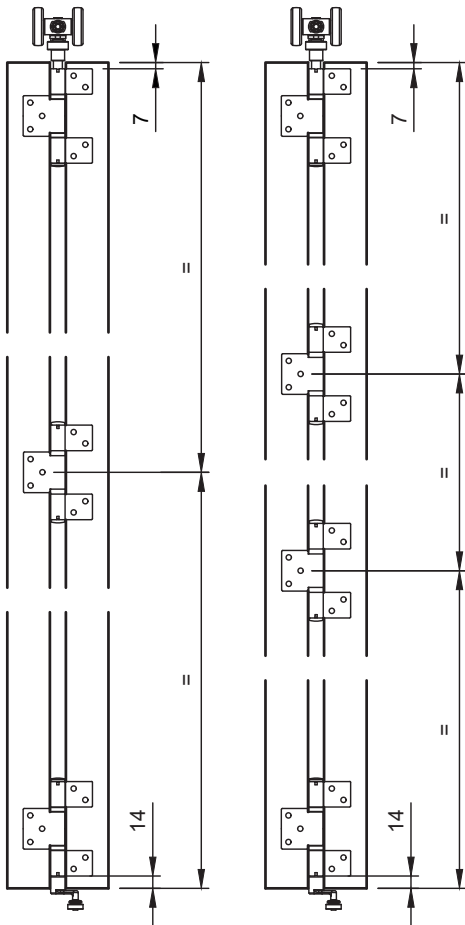
DRILL 4 HOLES MARKED ①
3.5mm AND FIT SCREWS

DRILL 3 HOLES MARKED ②
3.5mm AND FIT SCREWS

NOTE: SCREW FITTING
SEQUENCE IS CRITICAL TO
ACHIEVE CORRECT AIR SEAL
AND WATER RATING

10. Manufacturing Details

Typical Pivot / Intermediate Hinge Mounting Details - E3A



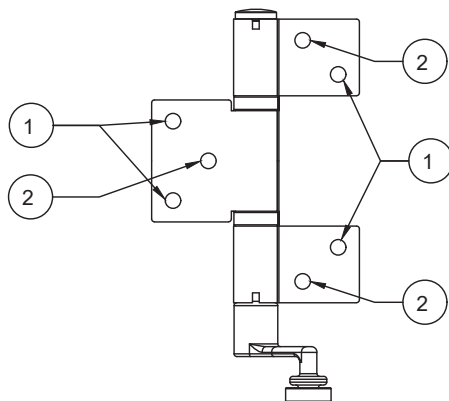
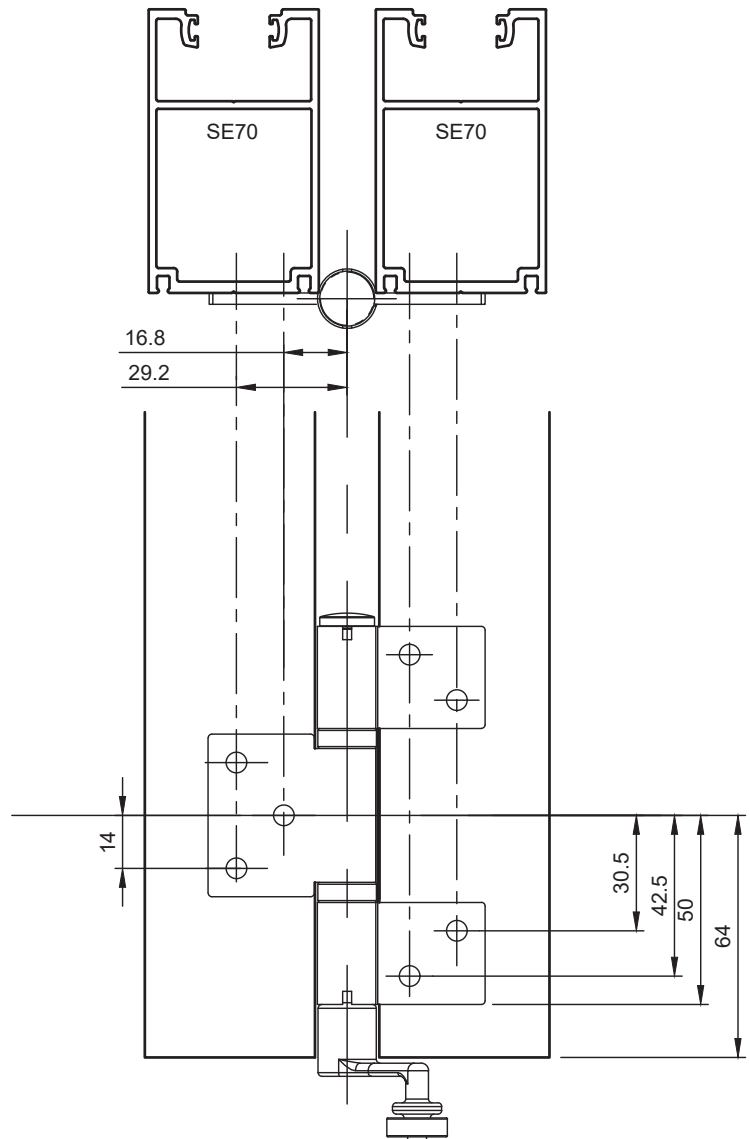
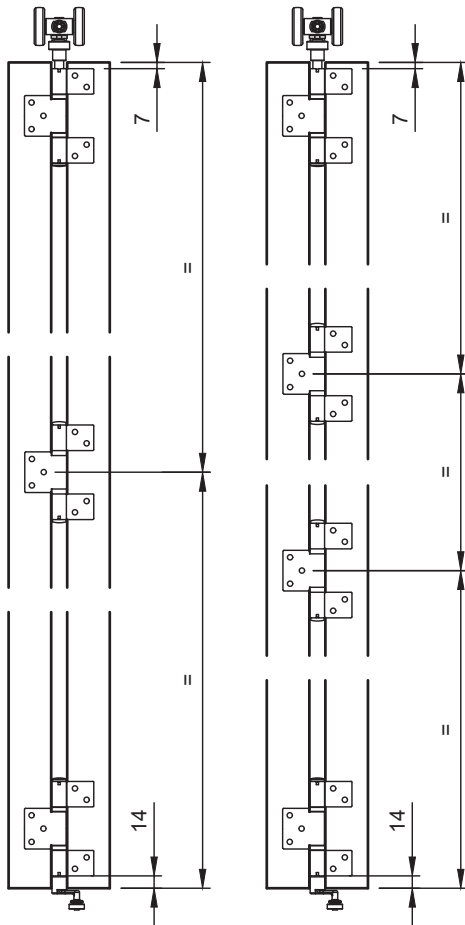
HINGE FITTING SEQUENCE

DRILL 4 HOLES MARKED ①
3.5mm AND FIT SCREWS

DRILL 3 HOLES MARKED ②
3.5mm AND FIT SCREWS

NOTE: SCREW FITTING
SEQUENCE IS CRITICAL TO
ACHIEVE CORRECT AIR SEAL
AND WATER RATING

Typical Pivot / Intermediate Hinge Mounting Details - E3A



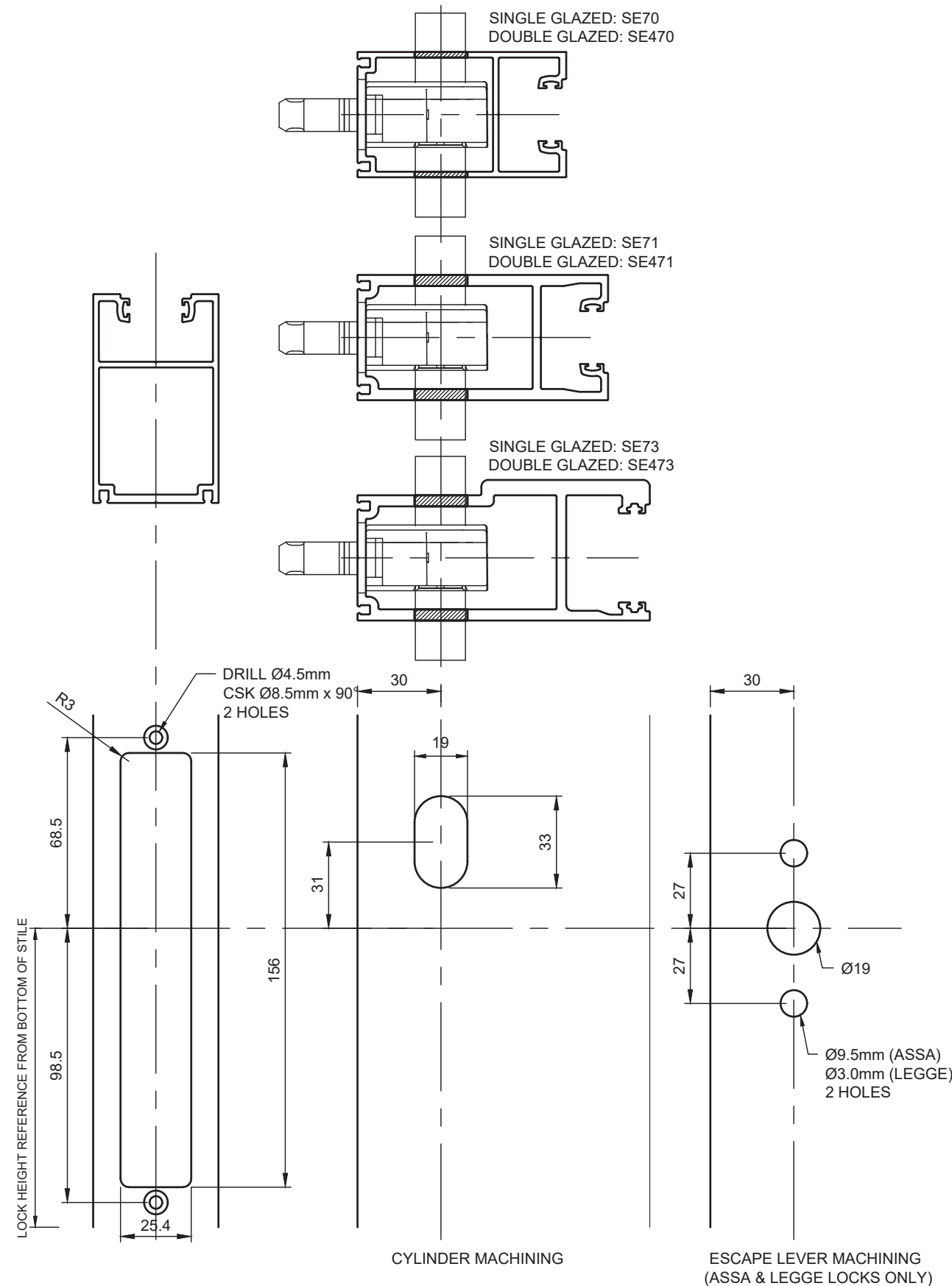
HINGE FITTING SEQUENCE

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3.5mm AND FIT SCREWS

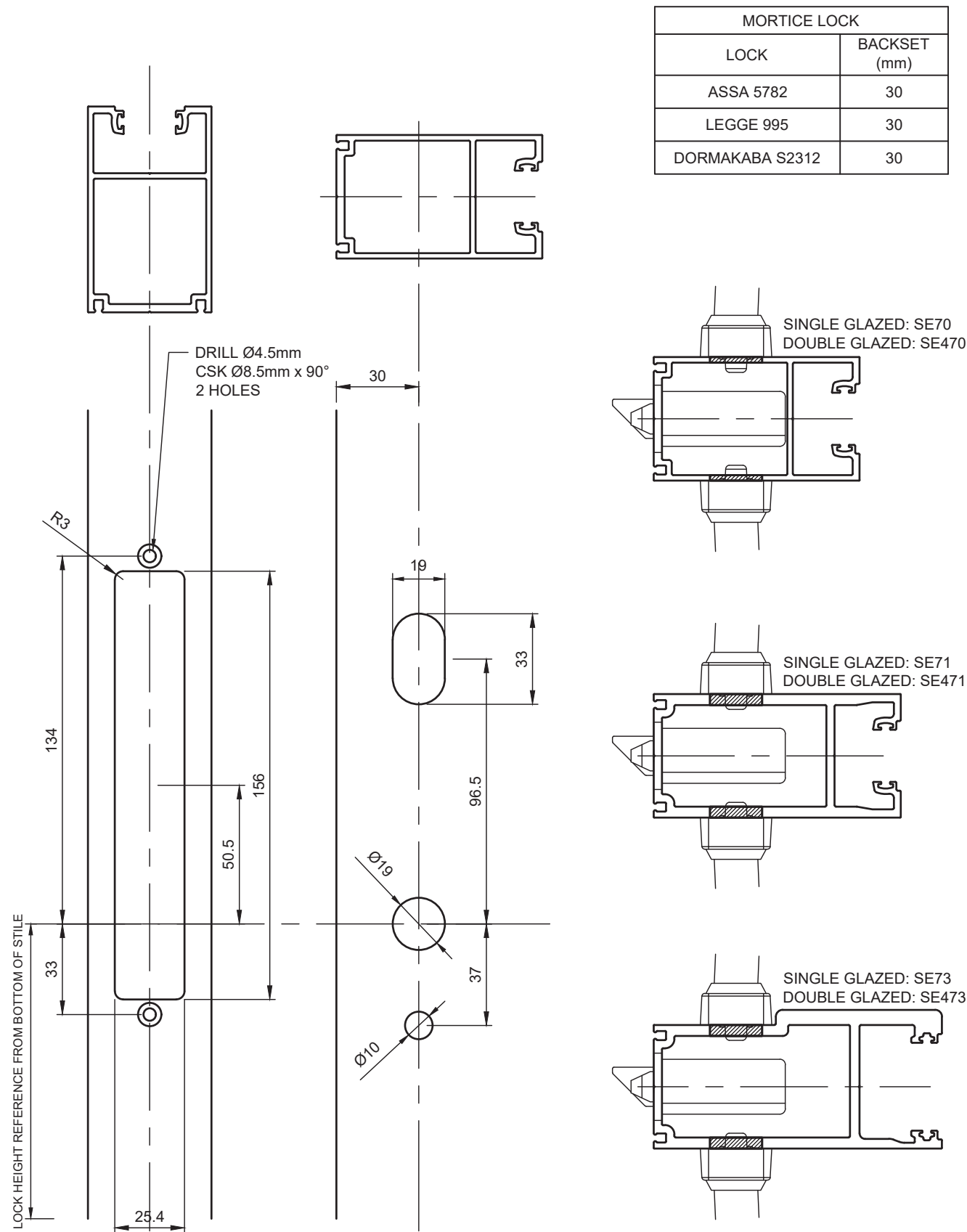
DRILL 3 HOLES MARKED ②
3.5mm AND FIT SCREWS

NOTE: SCREW FITTING
SEQUENCE IS CRITICAL TO
ACHIEVE CORRECT AIR SEAL
AND WATER RATING

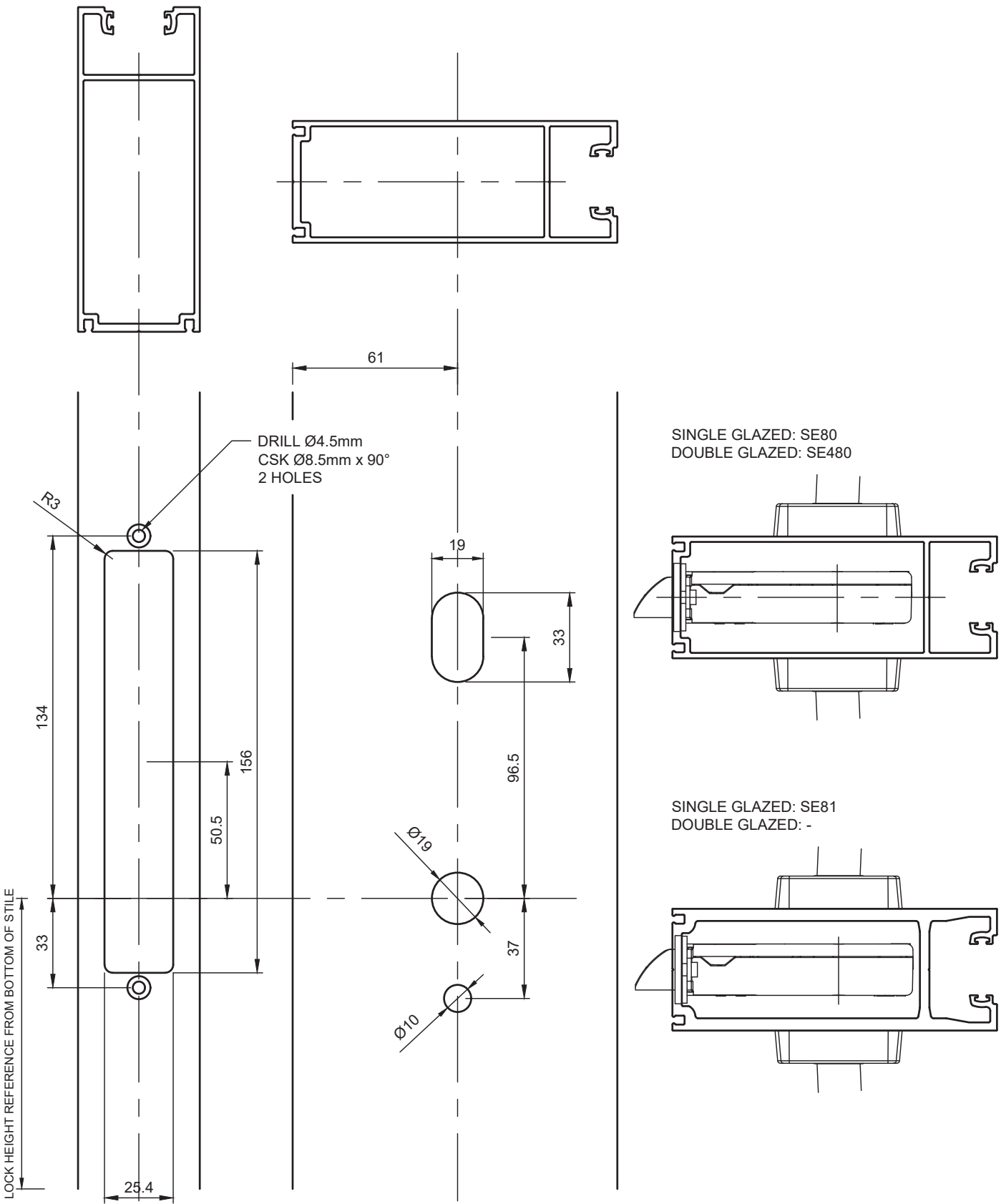
Lock Stile Preparation to Suit Lockwood 551 Swing Bolt Lock



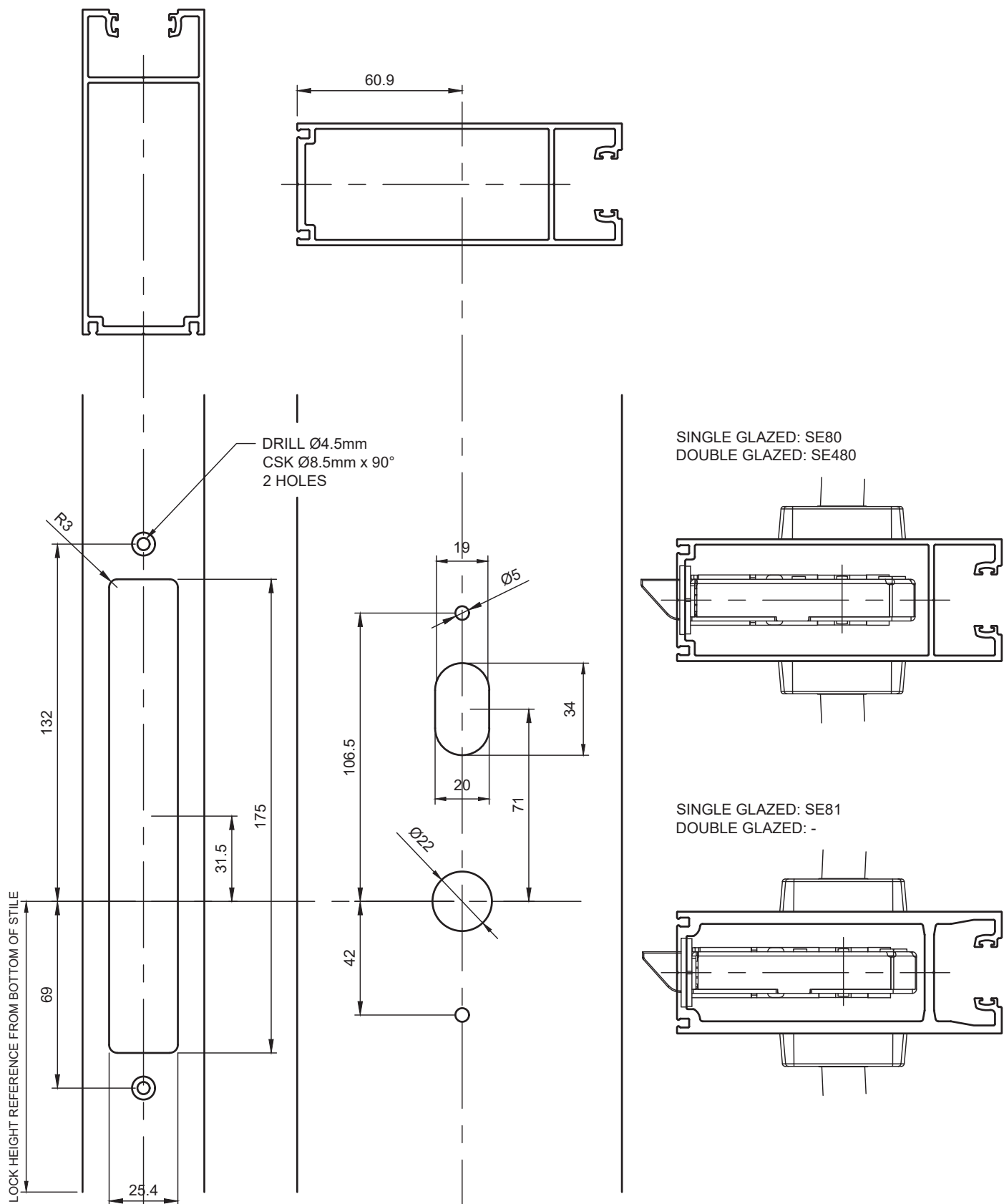
Lock Stile Preparation Commerical Mortice Locks



Lock Stile Preparation Commercial Mortice Lock ASSA 3772 60mm Backset

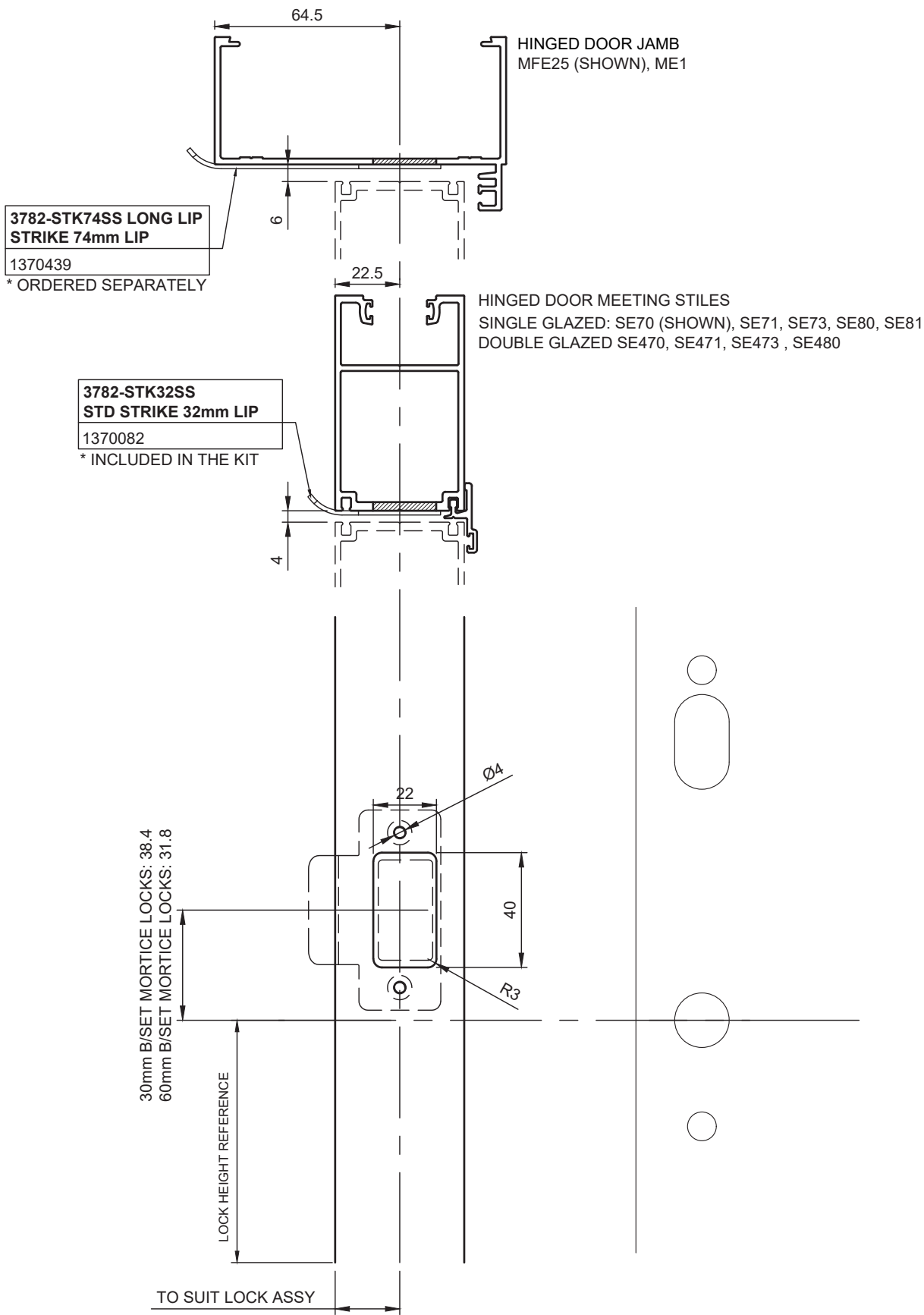


Lock Stile Preparation Commercaill Mortice Lock Dorma MS600 60mm Backset

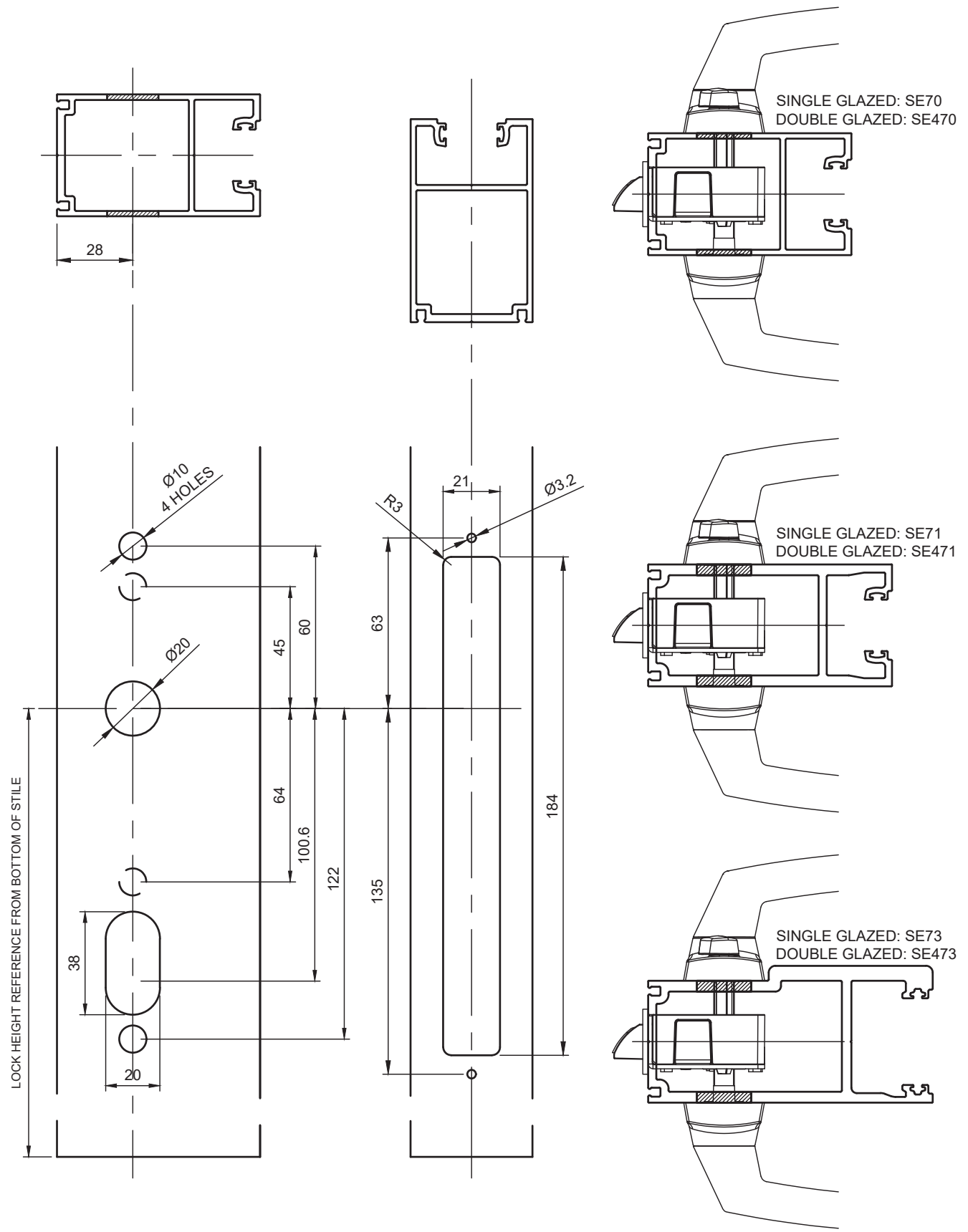


10. Manufacturing Details

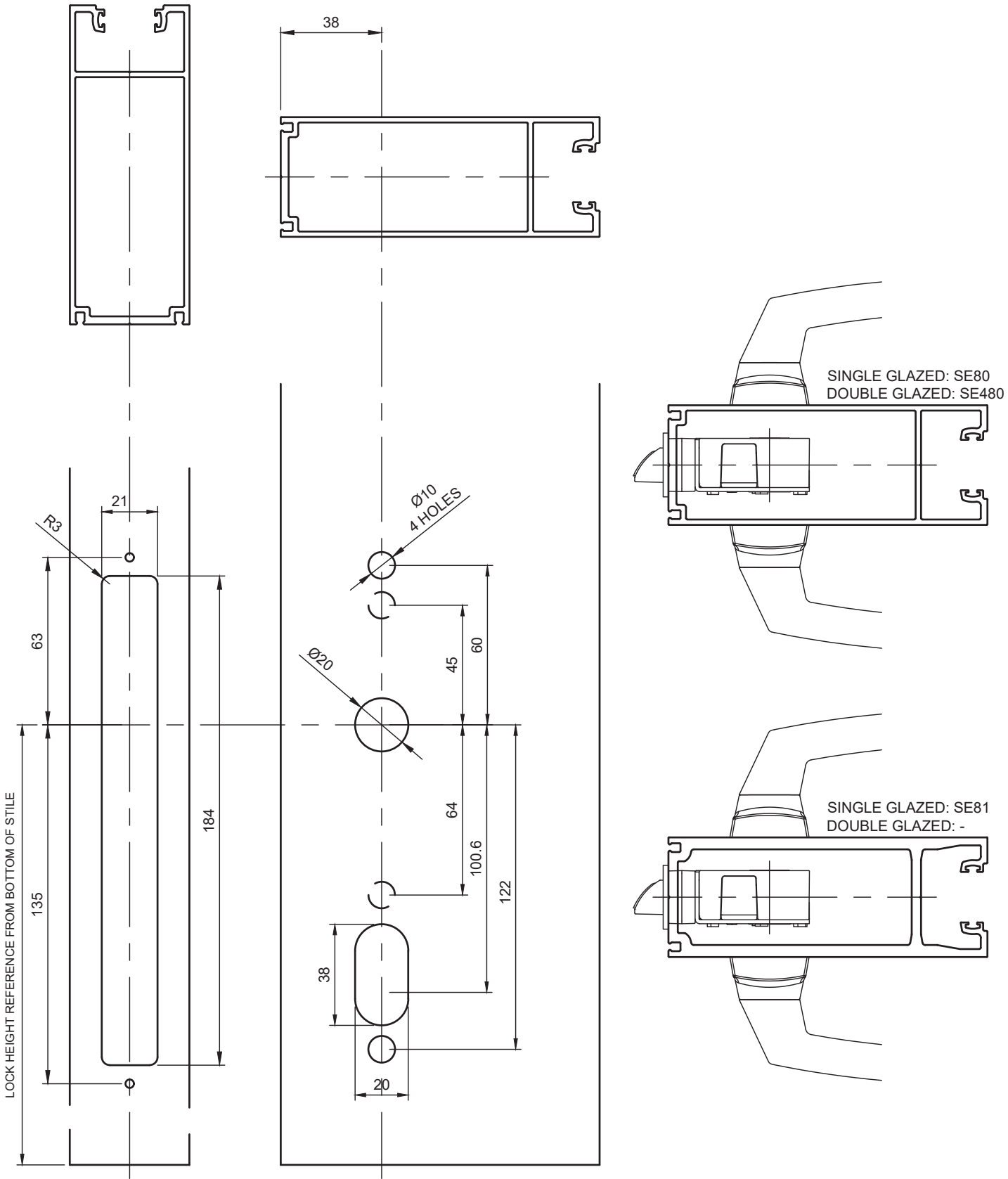
Jamb & Meeting Stile Commercial Mortice Lock Strike Preparation



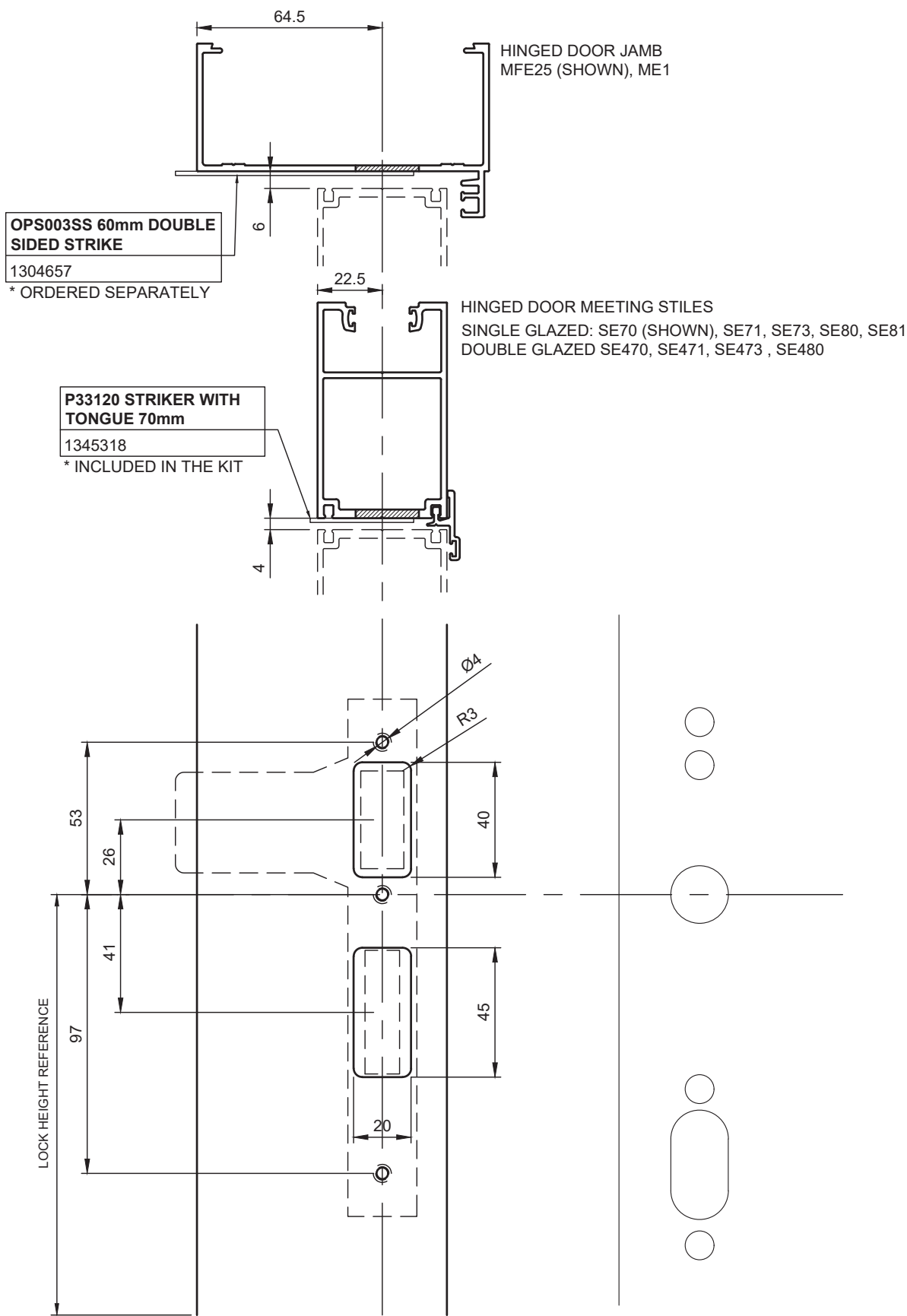
Lock Stile Preparation Lockwood Optimum / Killara Handles 30mm Backset



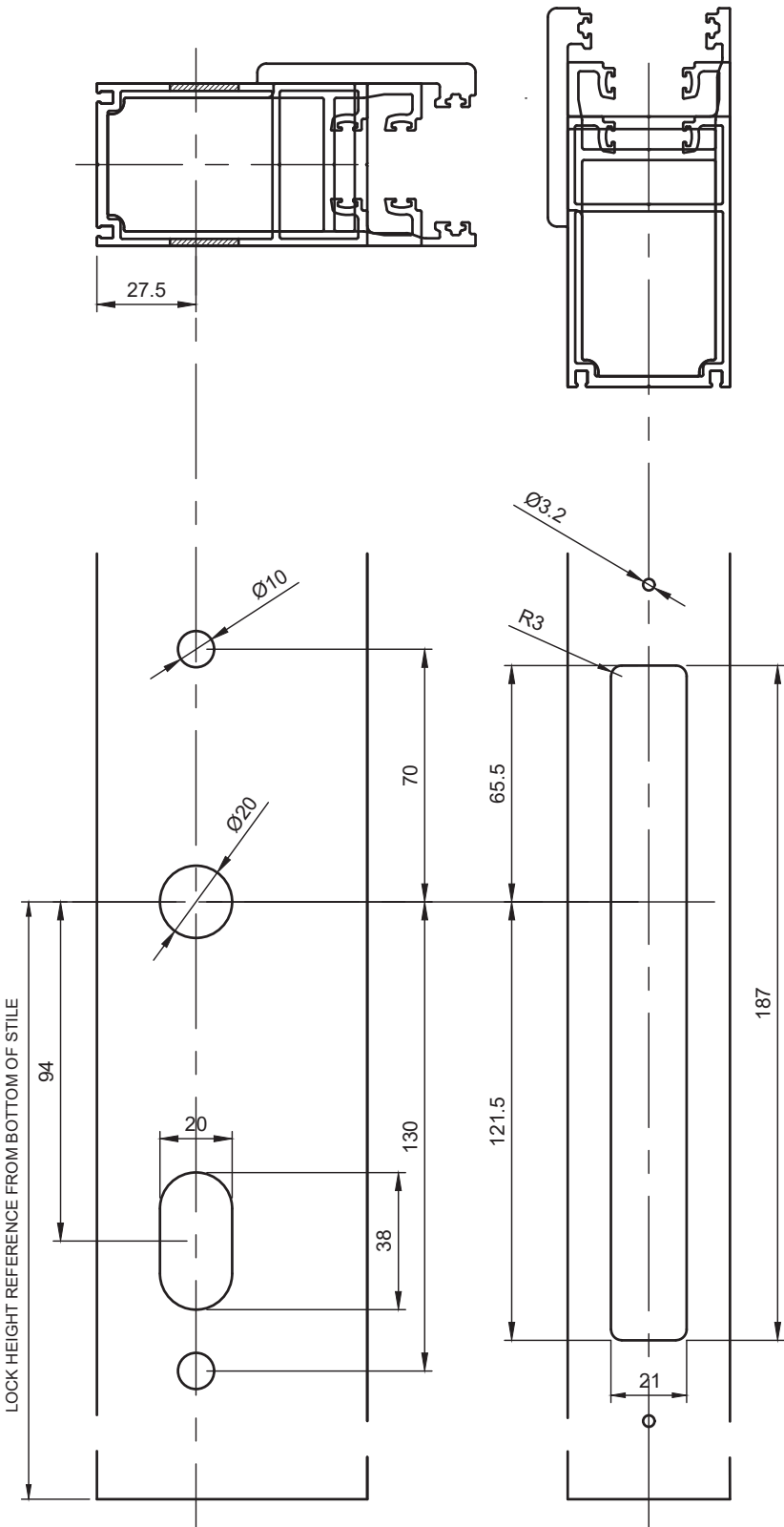
Lock Stile Preparation Lockwood Optimum / Killara Handles 40mm Backset



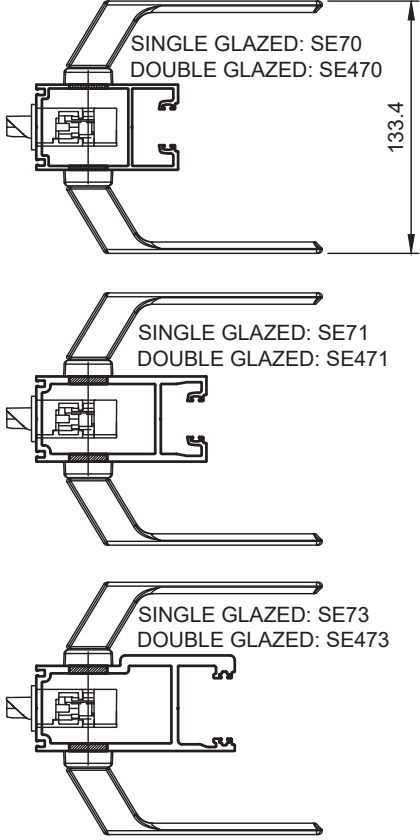
Jamb & Meeting Stile Lockwood Optimum Strike Preparation



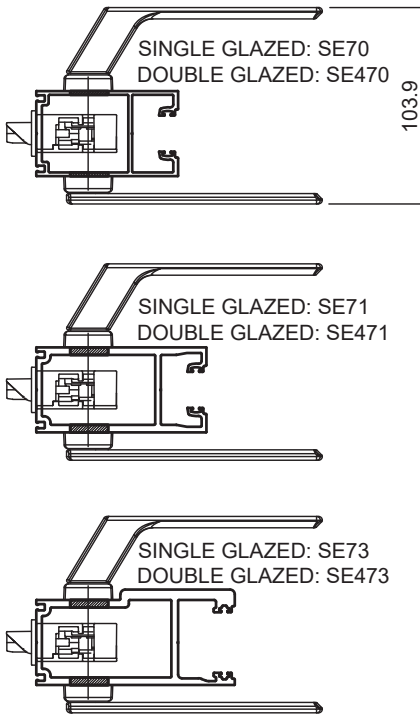
Lock Stile Preparation Allegion 2802 & 2804 Lock Body + 288 / 288M Furniture



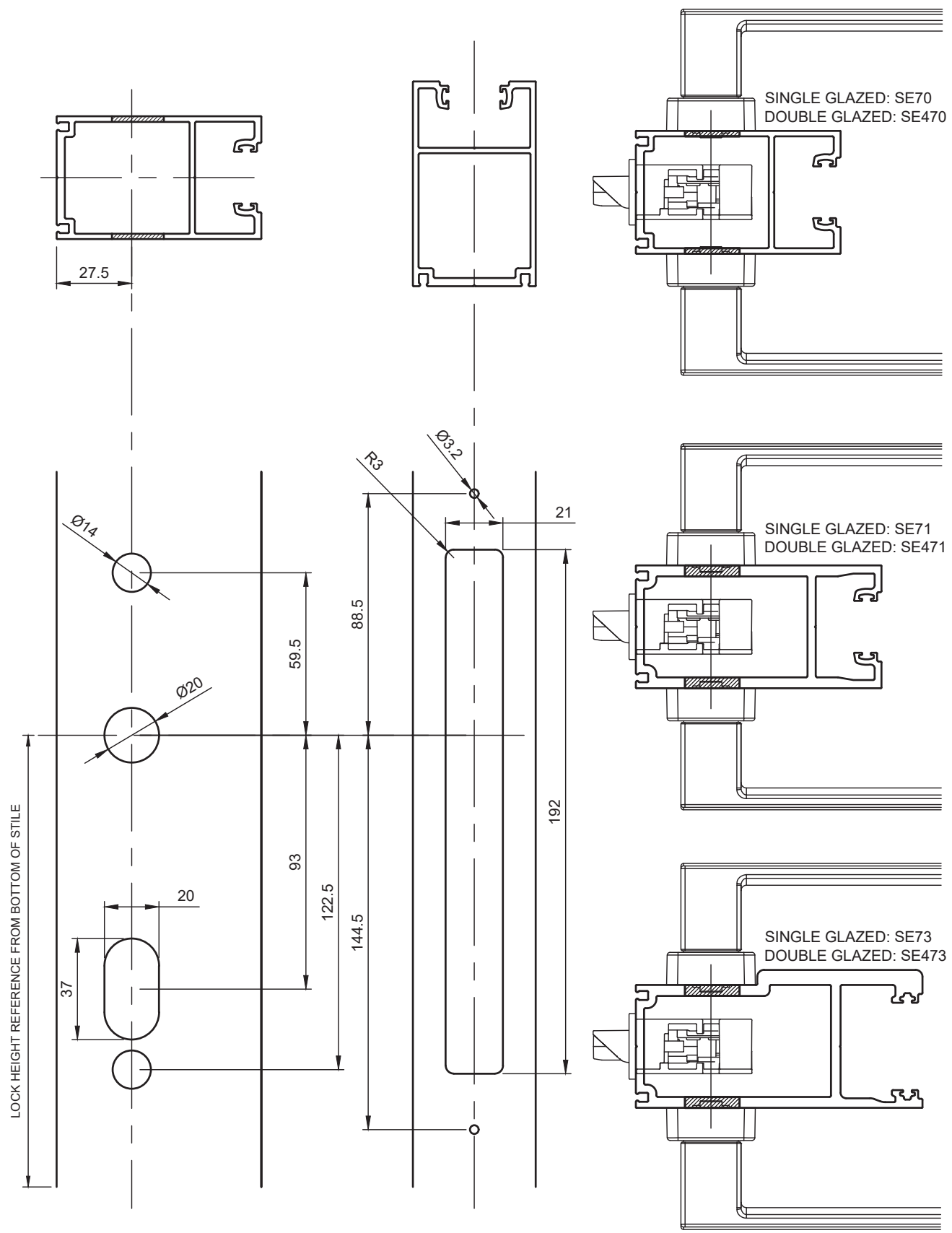
BRIO 288 LEVER HANDLE SET



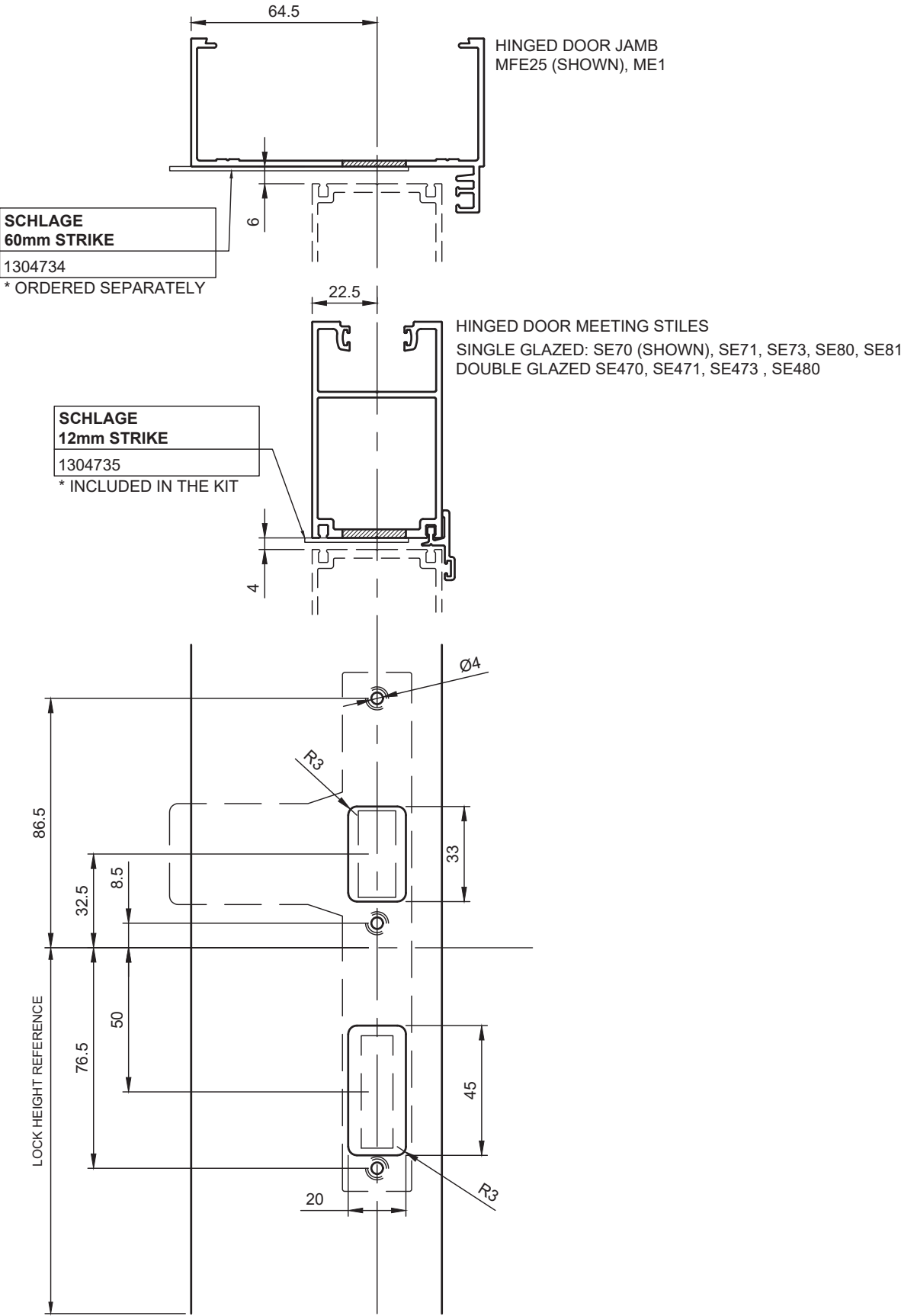
BRIO 288M MAGNETIC LEVER HANDLE SET



Lock Stile Preparation Verta Hinged Door Kit

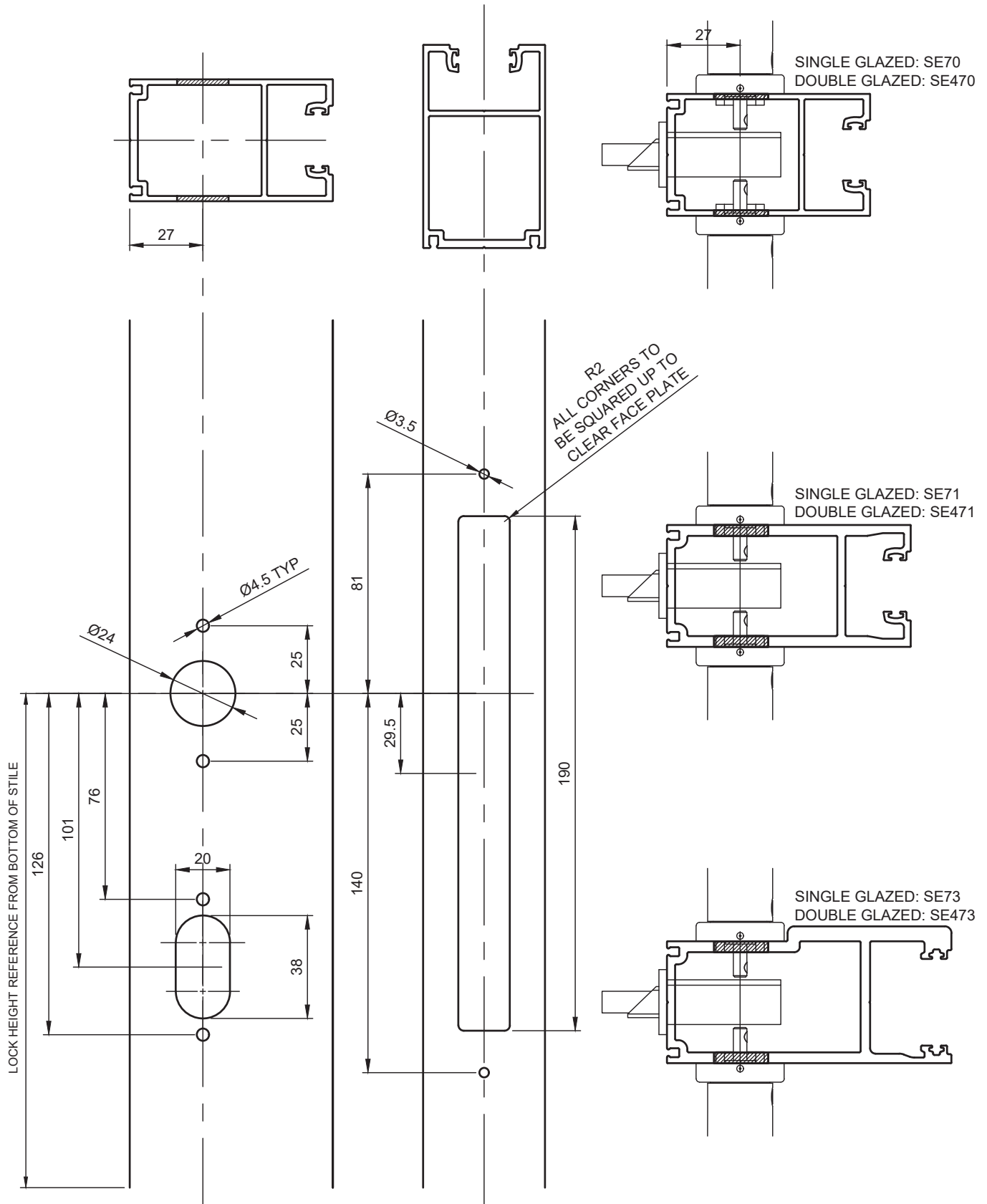


Jamb & Meeting Stile Preparation Verta Hinged Door Kit

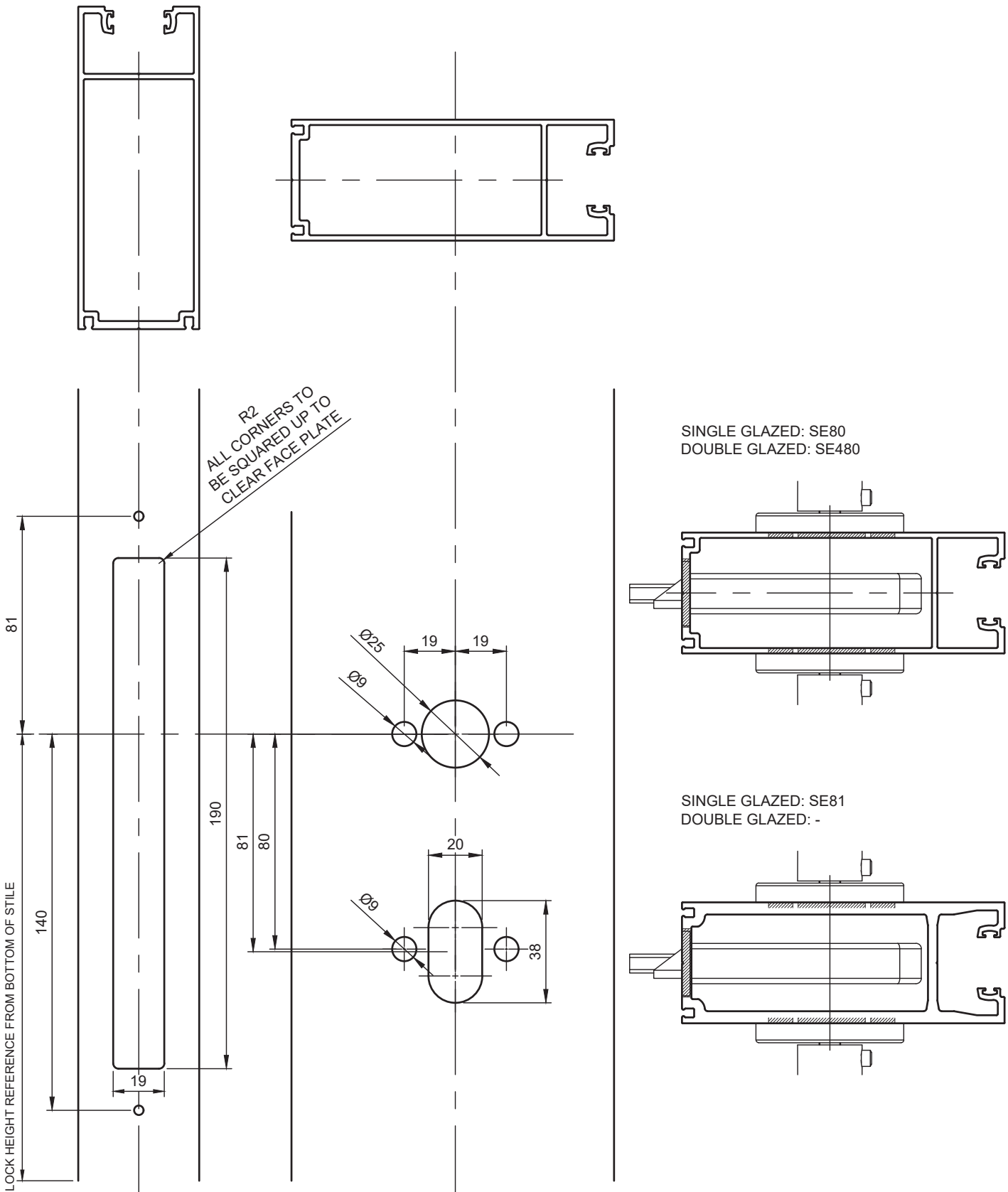


10. Manufacturing Details

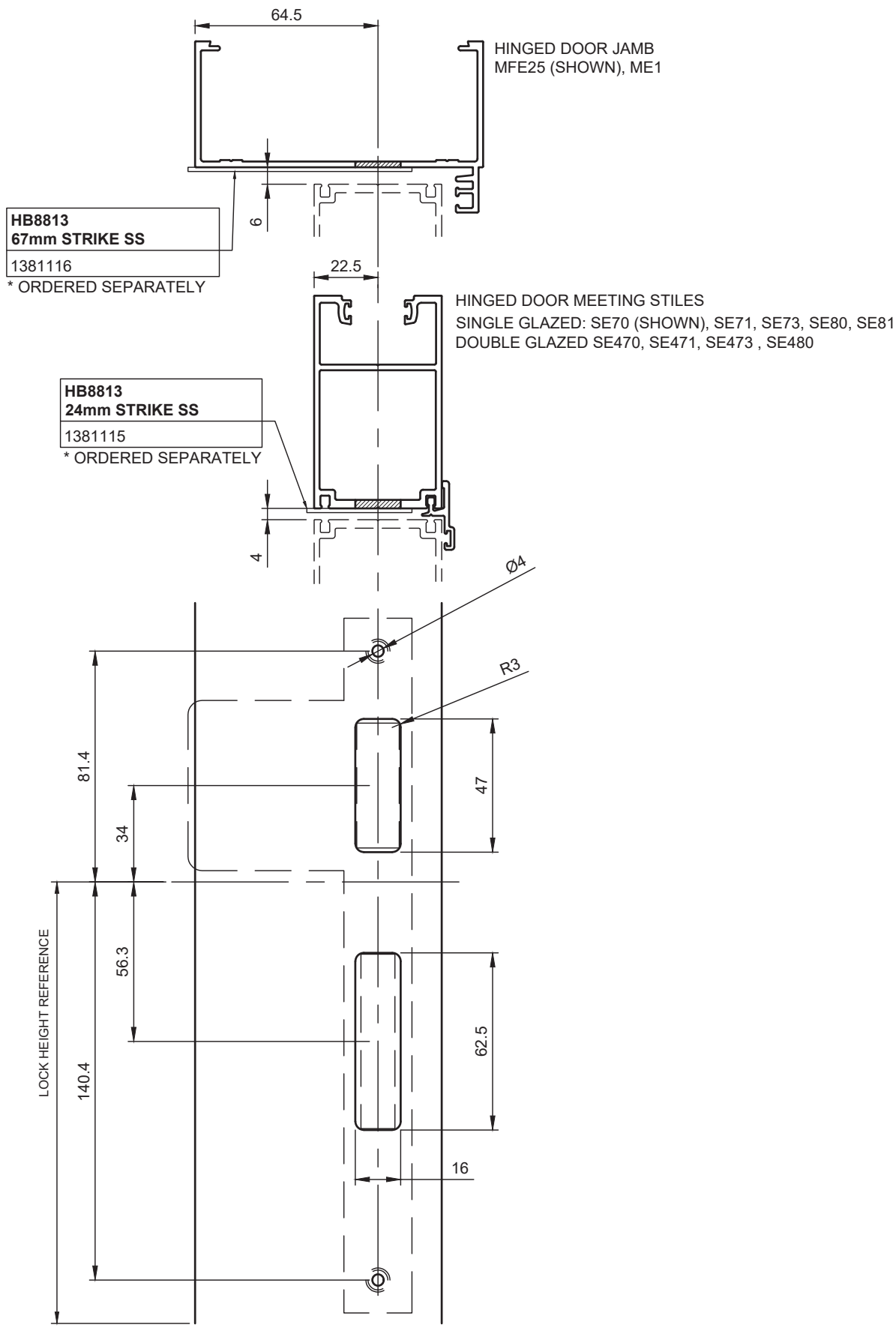
Lock Stile Preparation HB8813 30mm Backset Lock & Lever Kit



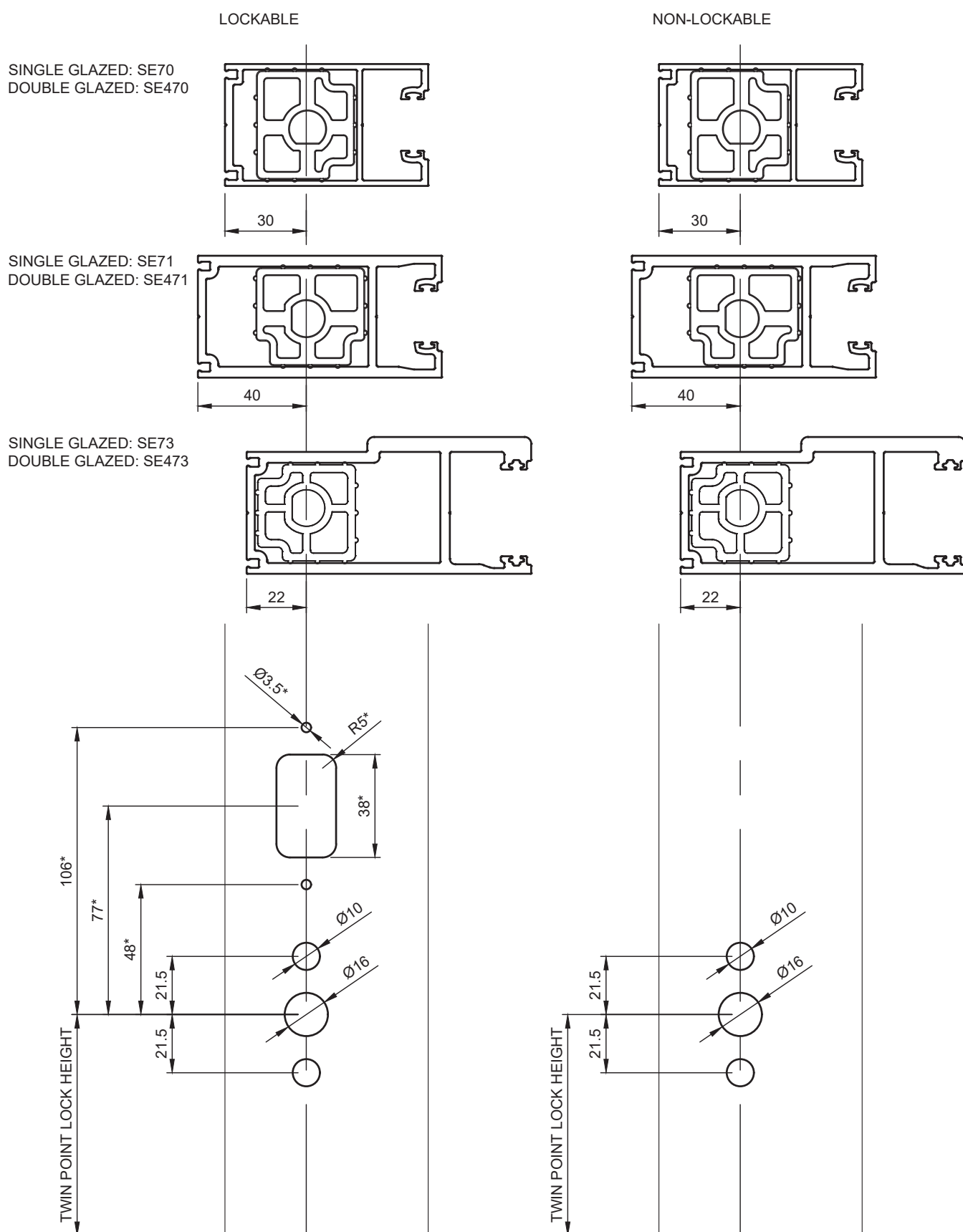
Lock Stile Preparation HB8813 55mm Backset Lock & Lever Kit



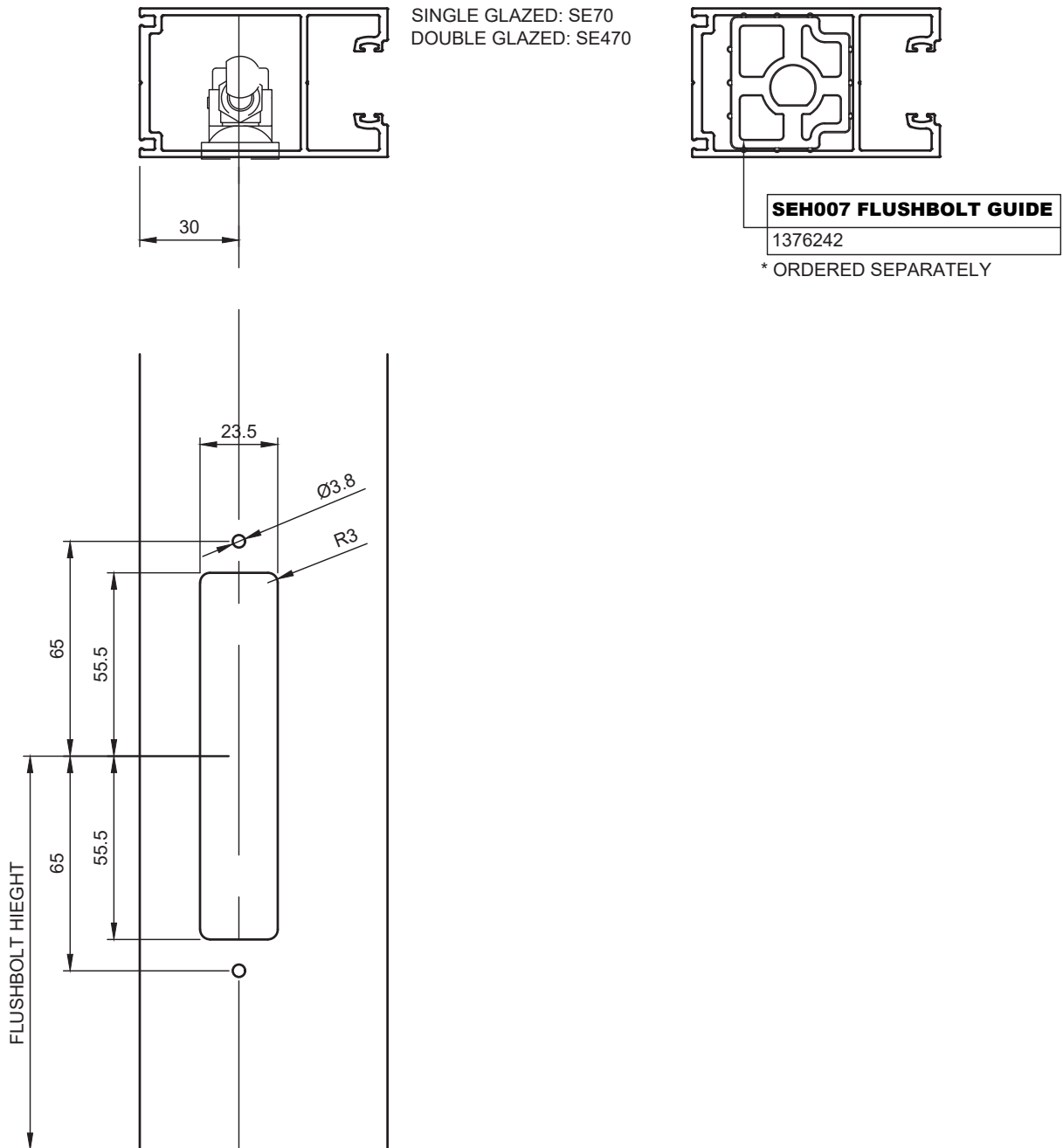
Jamb & Meeting Stile Preparation HB8813 Striker Plates



Twin Bolt Lock Preparation Killara Door Stile



Meeting Stile Preparation Flush Bolt Machining



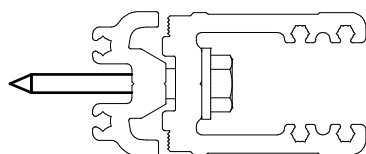
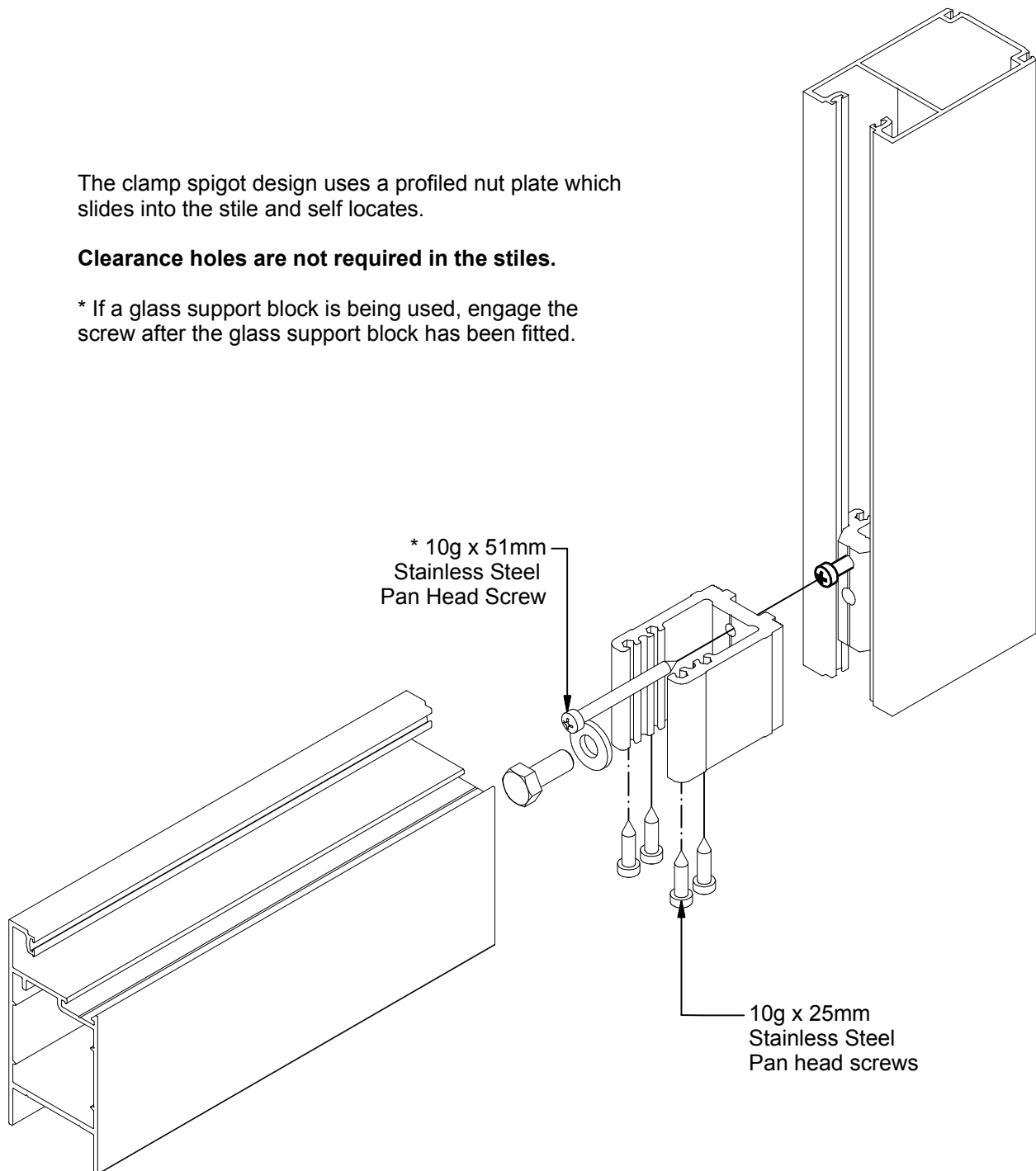
11. Assembly Details

Door Panel Corner Assembly

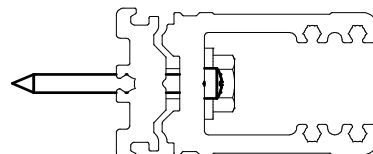
The clamp spigot design uses a profiled nut plate which slides into the stile and self locates.

Clearance holes are not required in the stiles.

* If a glass support block is being used, engage the screw after the glass support block has been fitted.



SE1000H
Single Glazed Spigot Kit

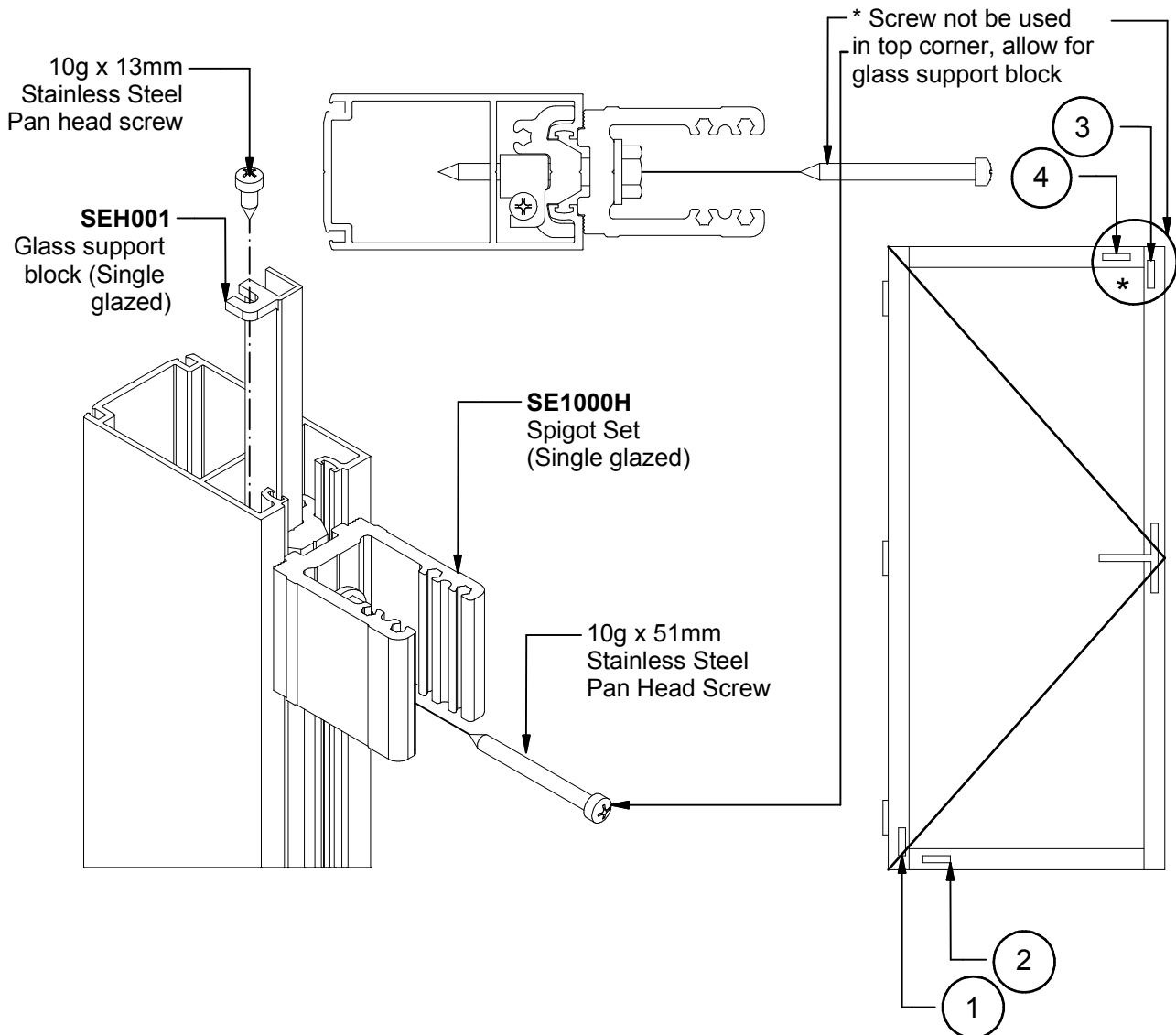


SE2000H
Double Glazed Spigot Kit

(Hex head option shown, socket head cap screw option also available)

11. Assembly Details

Glass Support Block Details



The Alspec glass support blocks have been developed to speed up and simplify the "heel and toe" glazing method in hinged doors, limiting door sag and increasing the working life of the door.

STEP 1: Insert a glass support block at the bottom on the hinged side. Use a 10g pan head screw to hold it in place. Important note, the support block must be installed prior to hanging the door.

STEP 2: Place a setting block in the bottom hinged corner, then insert glass.

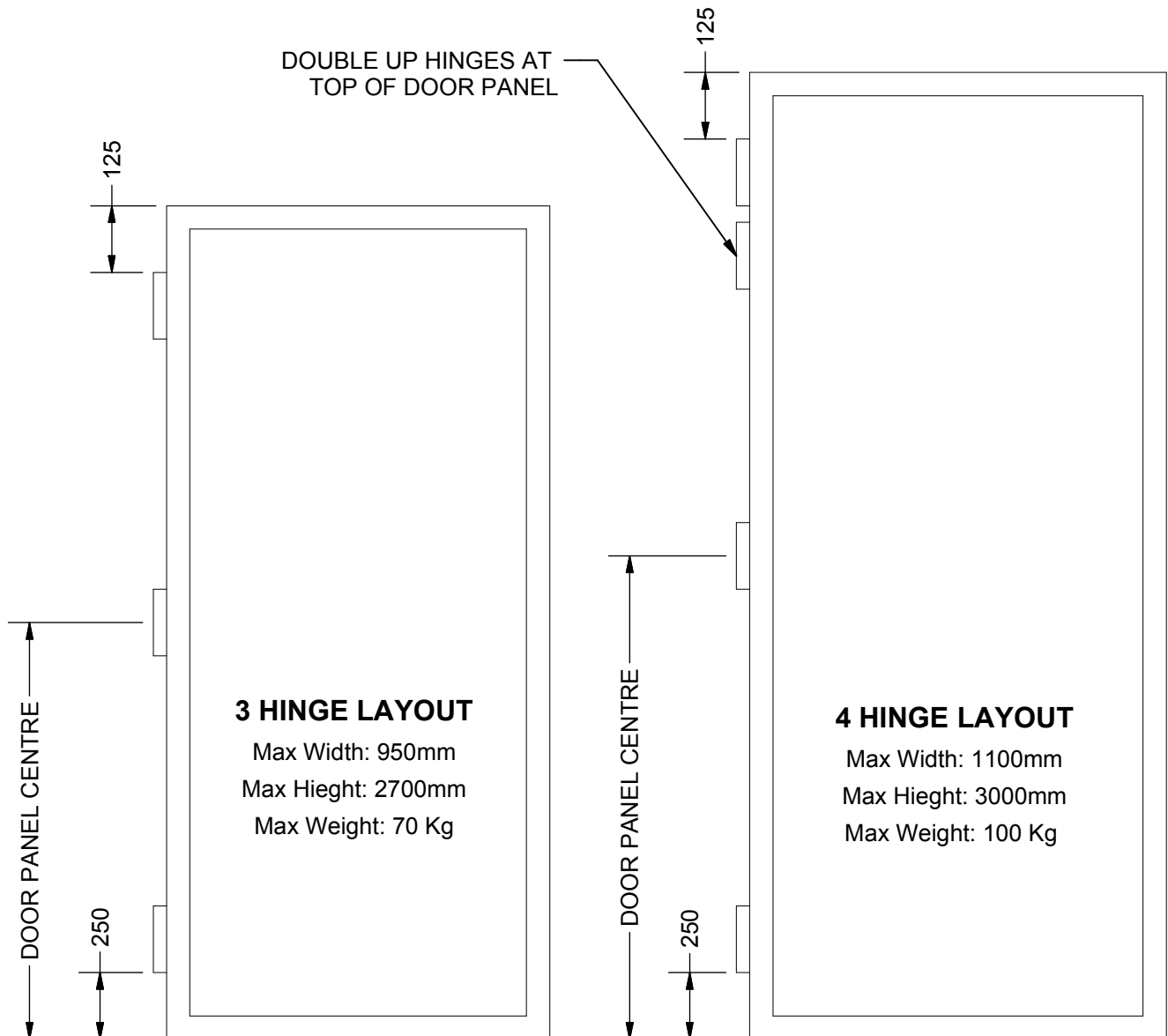
STEP 3: Install the glass support block in the opposite top corner. Slide it down between the glass and the stile.

STEP 4: Place a setting block in the top corner between the glass and the top rail. Complete the door by installing glazing beads and wedging the glass in place.

Note: For sliding panels, the glass support block can be used on all four corners to prevent glass shuffle

11. Assembly Details

Hinge Layout

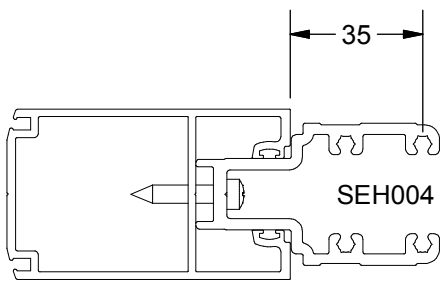
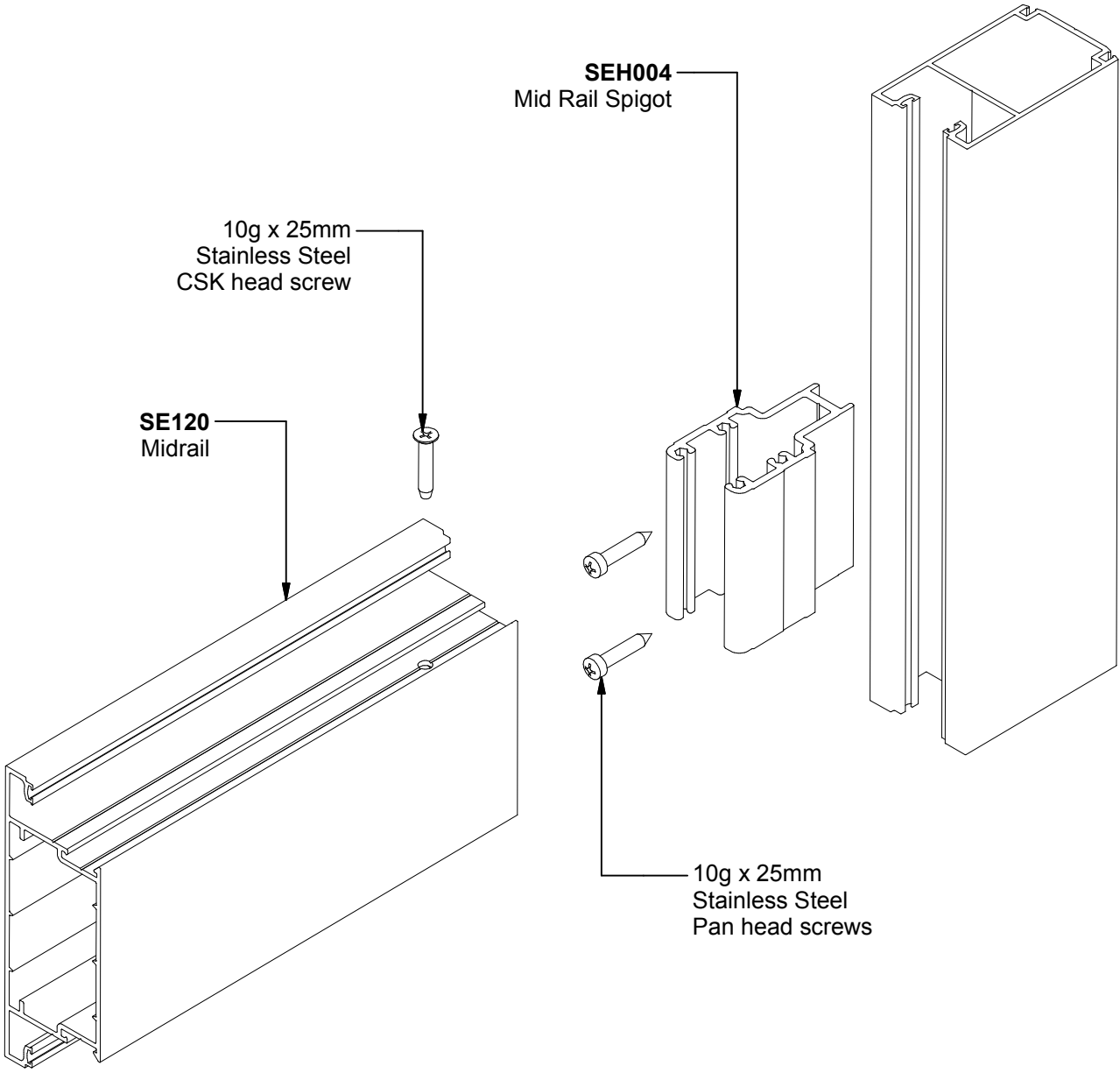


Door closer application: The 4 hinge layout must be used in all cases due to the additional lateral forces applied by the door closer.

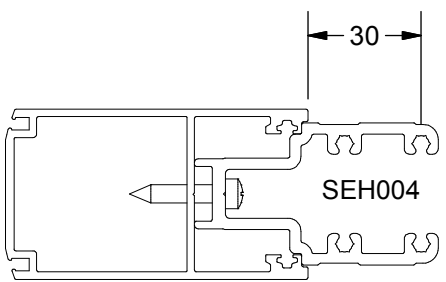
The above hinge layouts and recomendations are only applicable to the A104 Heavy Duty Hinges.

11. Assembly Details

Mid Rail Assembly



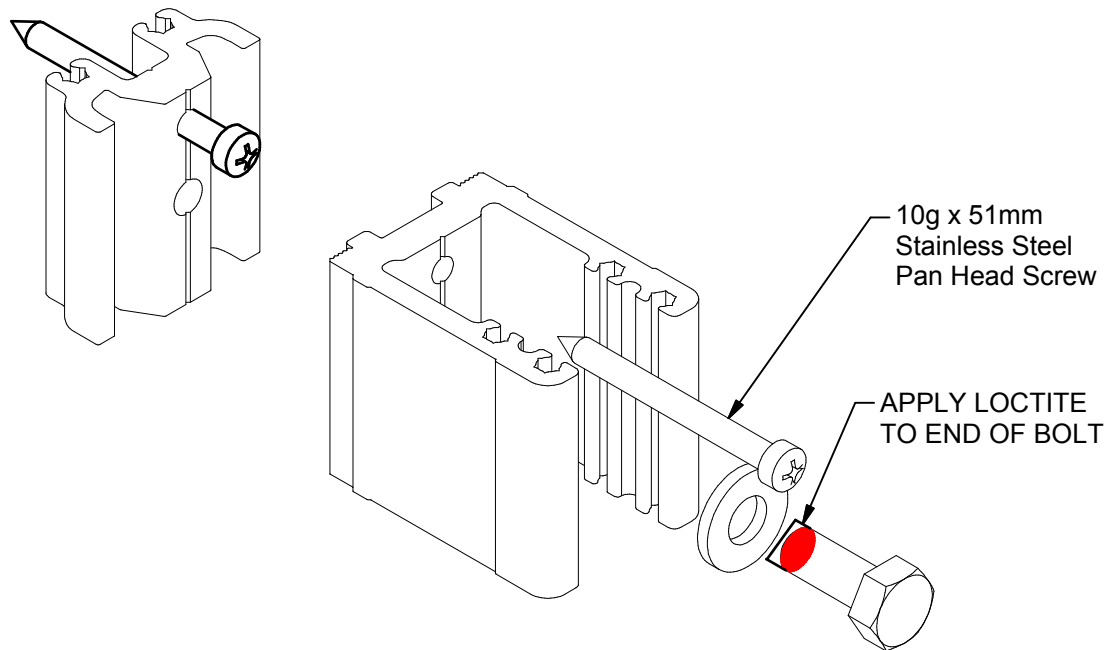
Single glazed mid rail assembly



Double glazed mid rail assembly

11. Assembly Details

Spigot Fitting Instructions



IMPORTANT FITTING INSTRUCTIONS

1. Apply Loctite 243 (or similar) to the end of the bolt before screwing into the nut plate to act as a thread lubricant. This is critical on aluminium threads which can cause the bolt to bind up prematurely before maximum torque has been achieved, this can be heard as creaking and groaning when tightening. Loctite also has the added benefit of locking the threads.

2. Tightening the bolts to the correct torque is critical. Air tools should be calibrated to approx 32Nm of torque.

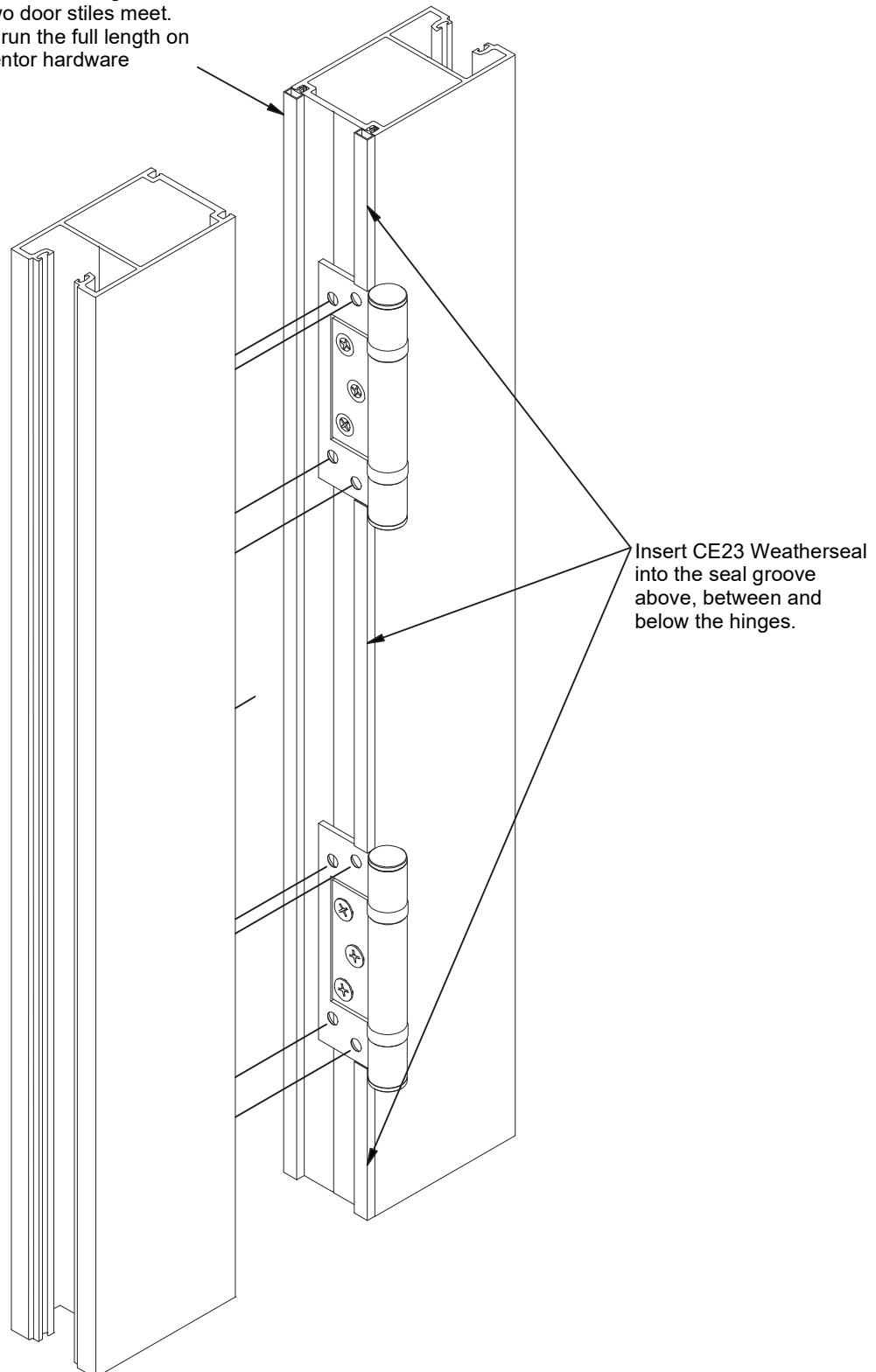
If tightening by hand, a wrench with a handle length of approx 250mm should be used for the required amount of leverage. A Large T bar is also a good option for the socket head cap screws which require allen keys.

Screw fixing is required after the bolt is tightened.

11. Assembly Details

CE23 Weatherseal Arrangement Detail

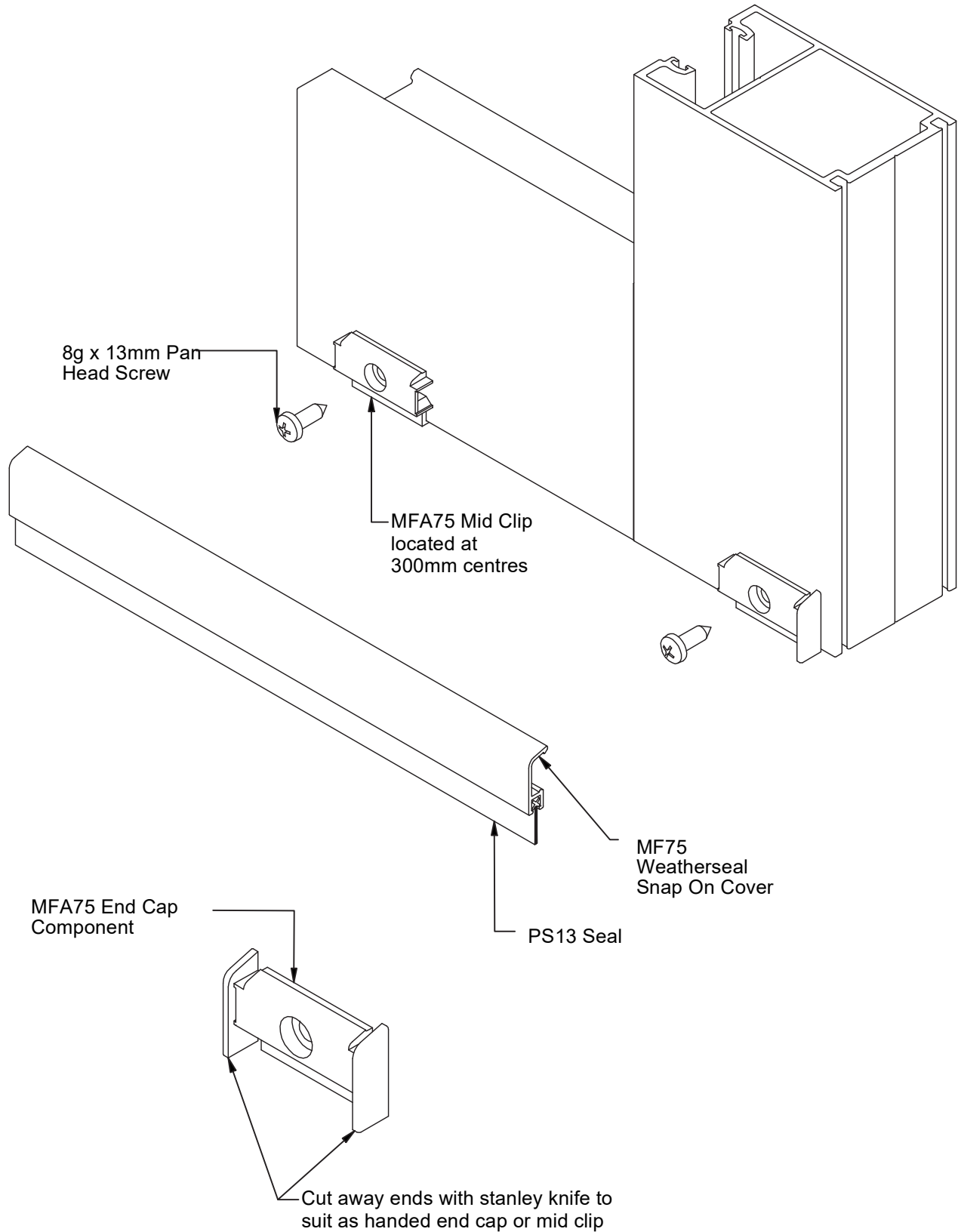
Insert CE23 Weatherseal into the seal groove of one door stile where the two door stiles meet. CE23 Weatherseal should run the full length on the opposite side to the Centor hardware location.





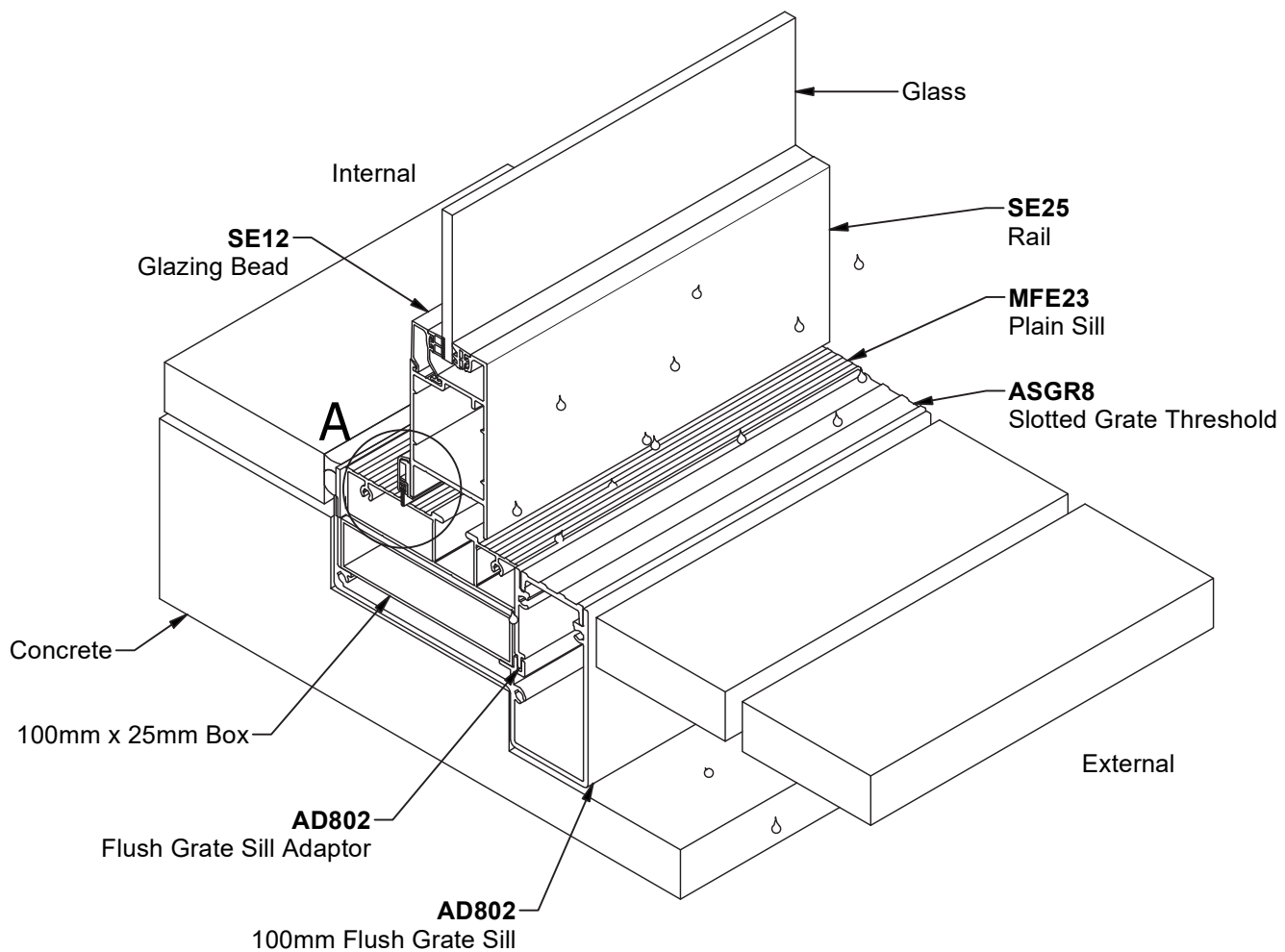
11. Assembly Details

Weather Strip Assembly

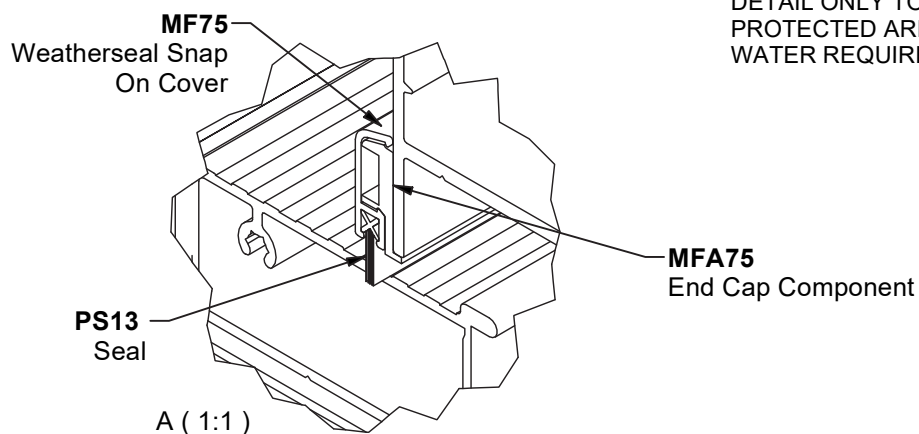


11. Assembly Details

Bi-Fold Flat Sill Door

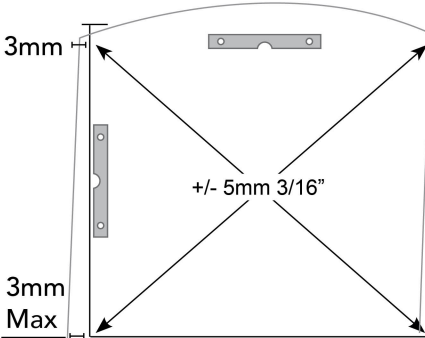
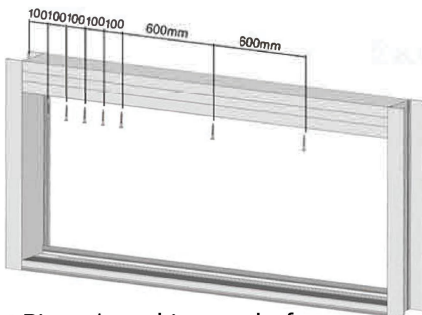
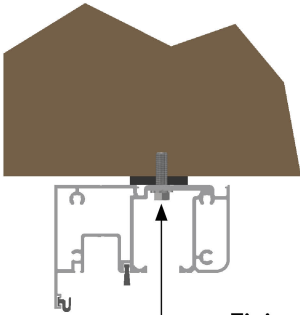
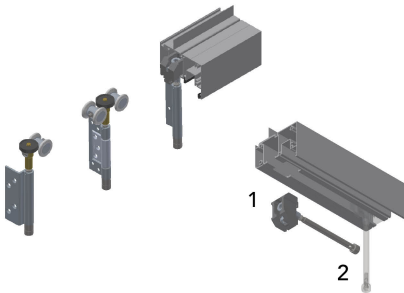
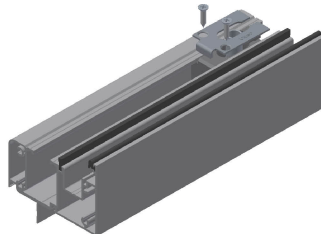
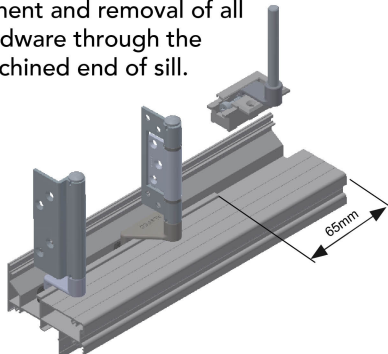
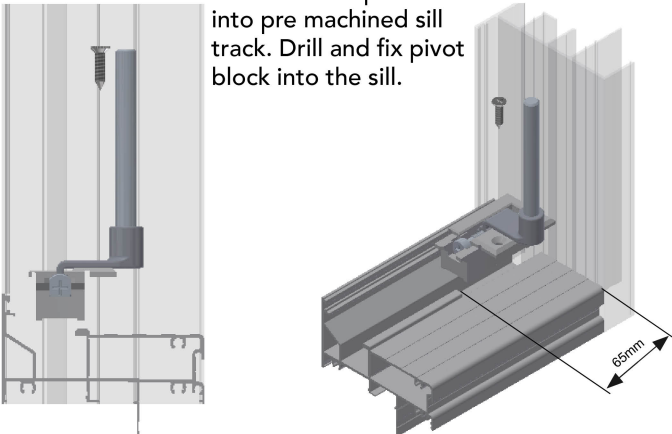
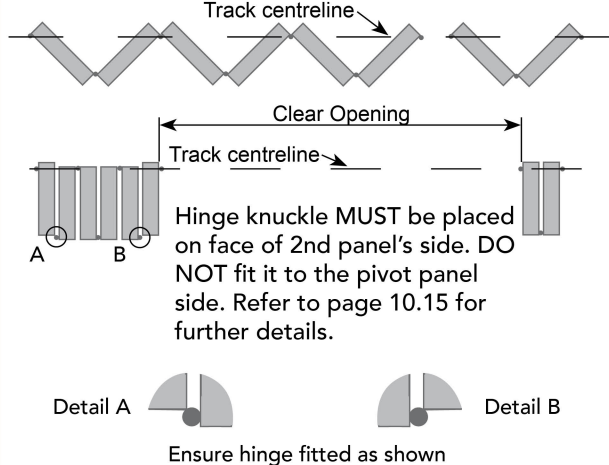


NOTE:
DETAIL ONLY TO BE USED IN SHELTERED OR PROTECTED AREAS AS IT MAY NOT MEET WATER REQUIREMENTS OF AS2047.



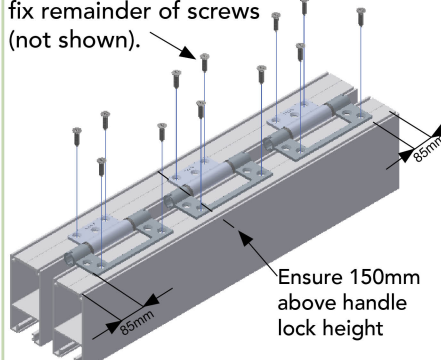
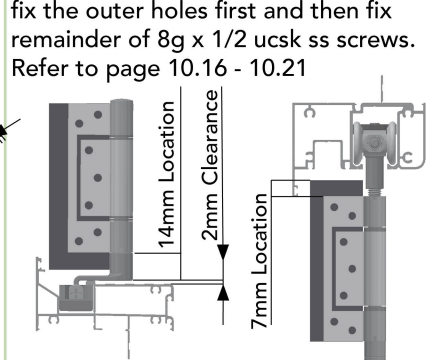
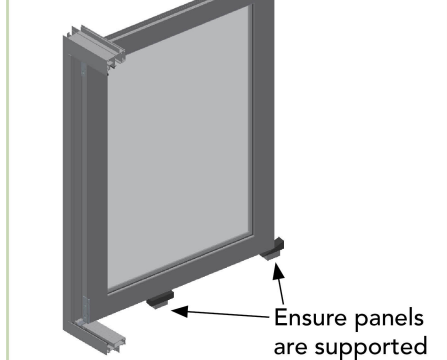
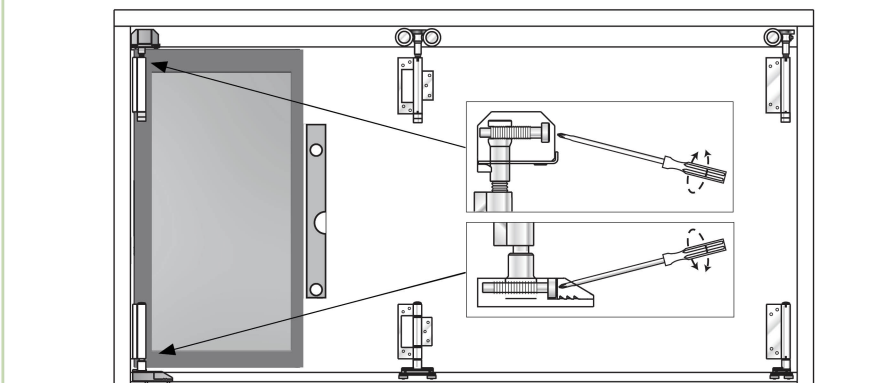
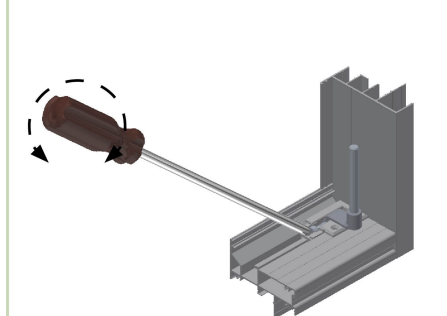
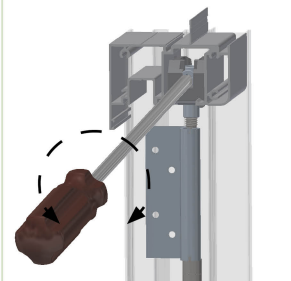
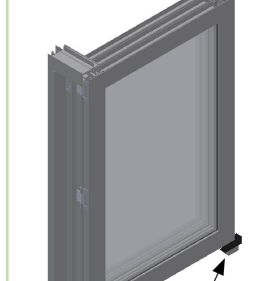
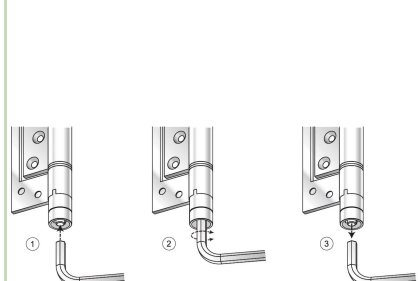
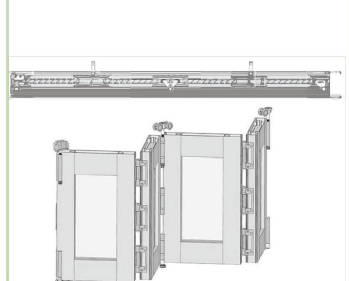
11. Assembly Details

Installation Details

	 Pivot / stacking end of track	 Fixing to engineers specification
1. INSTALL FRAME	2. TRACKING END OF TRACK FIXINGS	3. HEAD FIXING
 Ensure hardware is inserted in the correct combination prior to installation. Test trial the fitment & removal of all the top hardware through the machined end of the head.	Place top pivot block into pre-drilled top track. Fit clamp plate and fix screws into top pivot block and extrusion 	Place hardware in correct combinations prior to the bottom end pivot block. Test trial the fitment and removal of all hardware through the machined end of sill. 
4. TOP HARDWARE TRACK ASSEMBLY	5. TOP PIVOT FITTING DETAIL	6. BOTTOM HARDWARE INSTALLATION
 Place bottom pivot block into pre machined sill track. Drill and fix pivot block into the sill.	 Hinge knuckle MUST be placed on face of 2nd panel's side. DO NOT fit it to the pivot panel side. Refer to page 10.15 for further details. Detail A Detail B Ensure hinge fitted as shown	
7. BOTTOM PIVOT FITTING	8. OFFSET HINGE ORIENTATION	

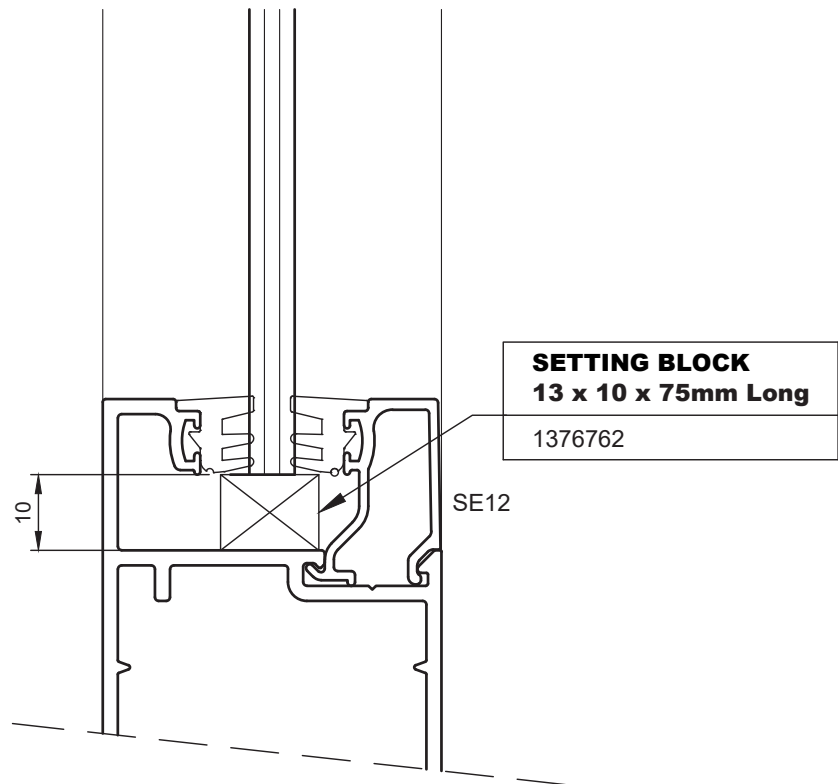
11. Assembly Details

Installation Details

Pre-drill 3.5mm hole into the stile. Fix shown screws first and then drill and fix remainder of screws (not shown).  Ensure 150mm above handle lock height Refer to page 10.13 and 10.14 for details	Fit hinges 7mm from the top & 14mm from the bottom of the panel. Drill and fix the outer holes first and then fix remainder of 8g x 1/2 ucsk ss screws. Refer to page 10.16 - 10.21  14mm Location 2mm Clearance 7mm Location Floor guide or bottom pivot Top pivot or carrier set	 Ensure panels are supported	
9. HINGES	10. CARRIER / PIVOT SET HINGES	11. FITTING PIVOT PANEL	
		 Adjust bottom panel horizontally if required	
12. PANEL ADJUSTMENT		13. BOTTOM PIVOT ADJUSTMENT	
 Adjust top panel horizontally if required	 Ensure all panels are supported during installation	 Insert and rotate allen key to adjust panel vertically if required	
14. TOP PIVOT ADJUSTMENT	15. ADDING PANELS	16. FINAL ADJUSTMENT	17. ELEVATION AND OVERVIEW

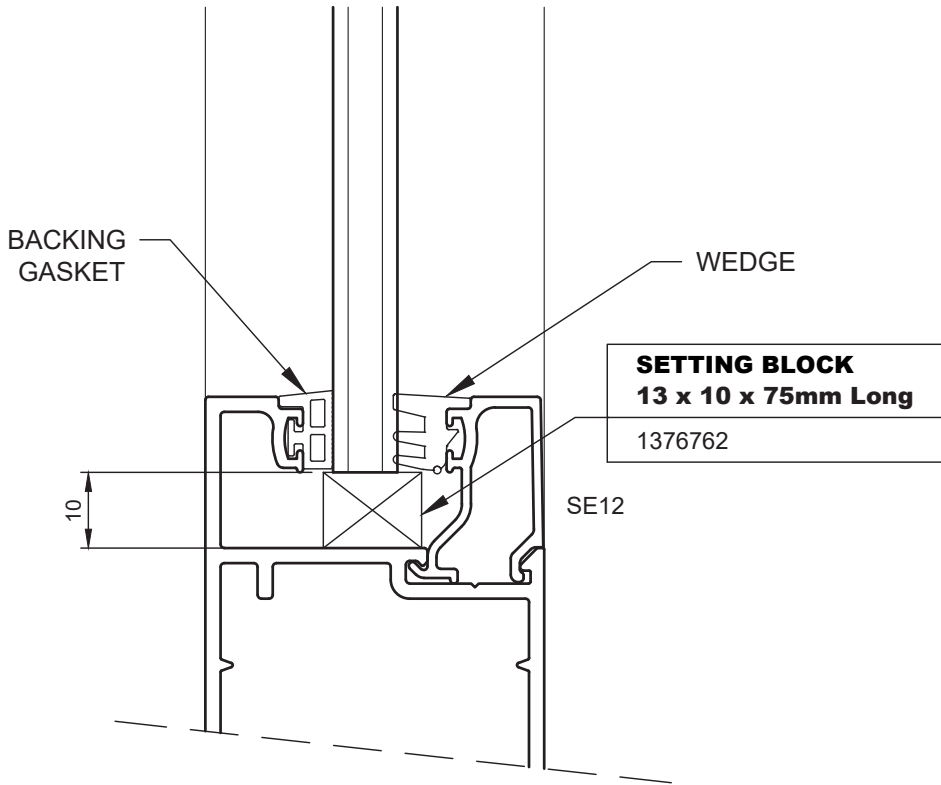
12. Glazing Details

Single Glazed Details - Non Captive



	WEDGE INNER		WEDGE OUTER	
GLASS THICKNESS	ID COLOUR	REF. (GAP)	ID COLOUR	REF. (GAP)
6 - 6.38mm THICK	RED	GR47 (7mm)	YELLOW	GR46 (6mm)
8 - 8.38mm THICK	BLUE	GR45 (5mm)	YELLOW	GR46 (6mm)
9.5mm THICK	BLUE	GR45 (5mm)	WHITE	GR44 (4mm)
10 - 10.38mm THICK	BLUE	GR45 (5mm)	WHITE	GR44 (4mm)
11.5mm THICK	BROWN	GR43 (3mm)	WHITE	GR44 (4mm)
12 - 12.38mm THICK	BROWN	GR43 (3mm)	BROWN	GR43 (3mm)
13.5mm THICK	-	GR32 (2mm)	BROWN	GR43 (3mm)

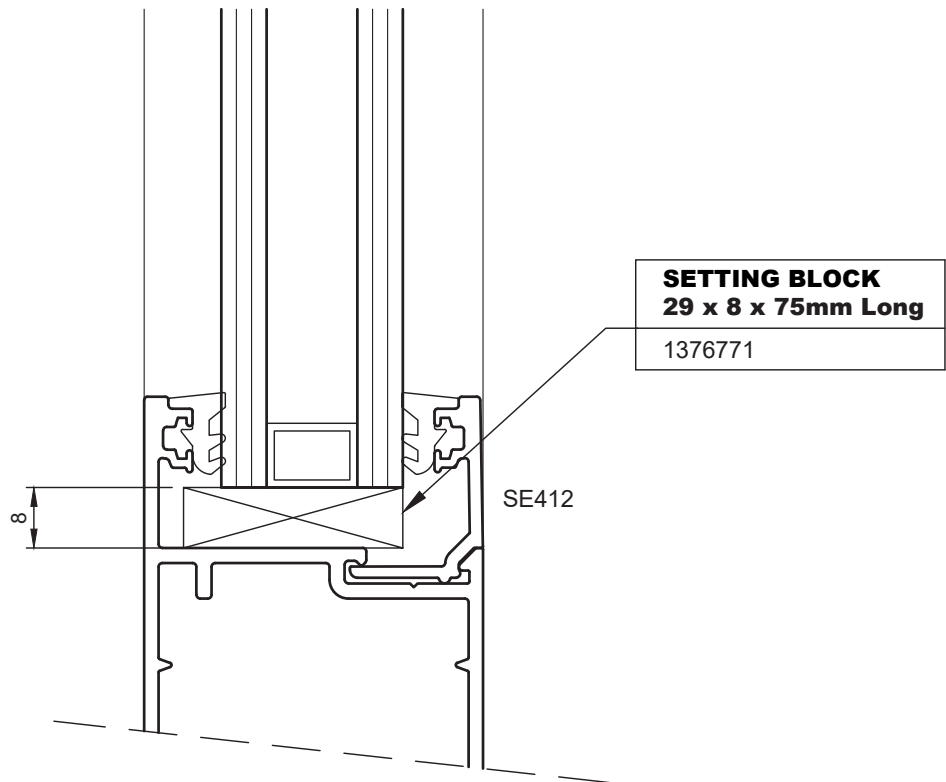
Single Glazed Details - Captive



	WEDGE INNER		CO-EXTRUDED BACKING GASKET
GLASS THICKNESS	ID COLOUR	REF. (GAP)	REF. (GAP)
6 - 6.38mm THICK	RED	GR47 (7mm)	CE49 (6mm)
8 - 8.38mm THICK	RED	GR47 (7mm)	CE37 (4mm)
9.5mm THICK	RED	GR47 (7mm)	CE36 (2mm)
10 - 10.38mm THICK	RED	GR47 (7mm)	CE36 (2mm)
11.5mm THICK	YELLOW	GR46 (6mm)	CE36 (2mm)

12. Glazing Details

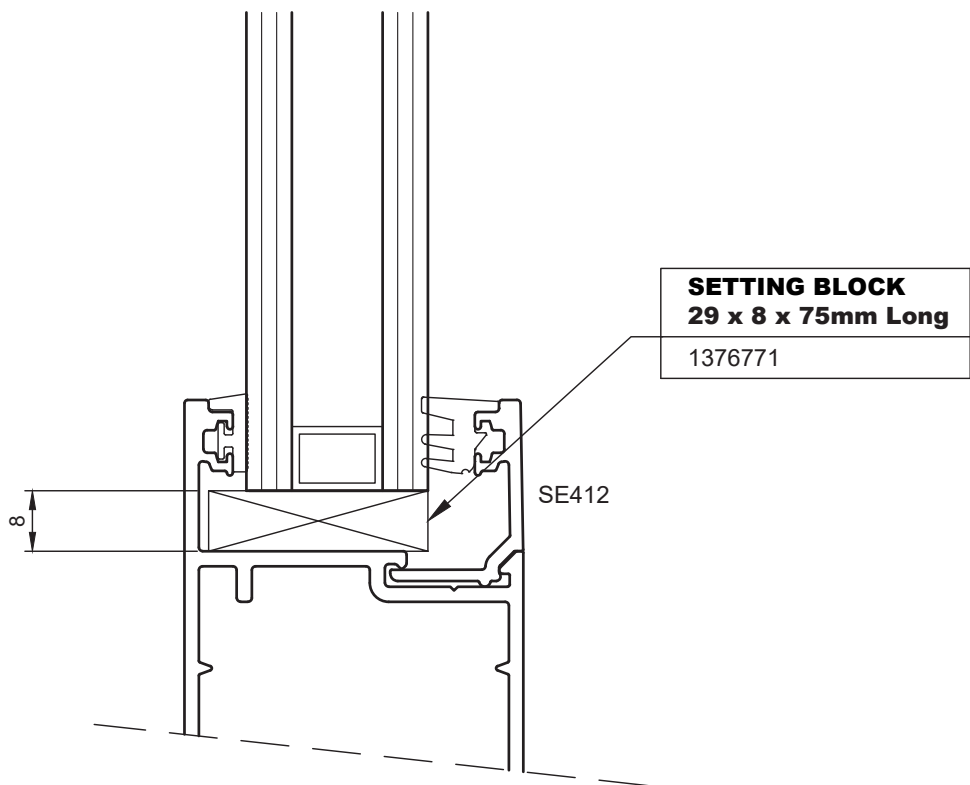
Double Glazed Details - Non Captive



	WEDGE INNER		WEDGE OUTER	
GLASS THICKNESS	ID COLOUR	REF. (GAP)	ID COLOUR	REF. (GAP)
18mm THICK	RED	GR47 (7mm)	RED	GR47 (7mm)
24mm THICK	WHITE	GR44 (4mm)	WHITE	GR44 (4mm)
25mm THICK	BROWN	GR43 (3mm)	BROWN	GR43 (3mm)
28mm THICK	BLACK	GR32 (2mm)	BLACK	GR32 (2mm)

12. Glazing Details

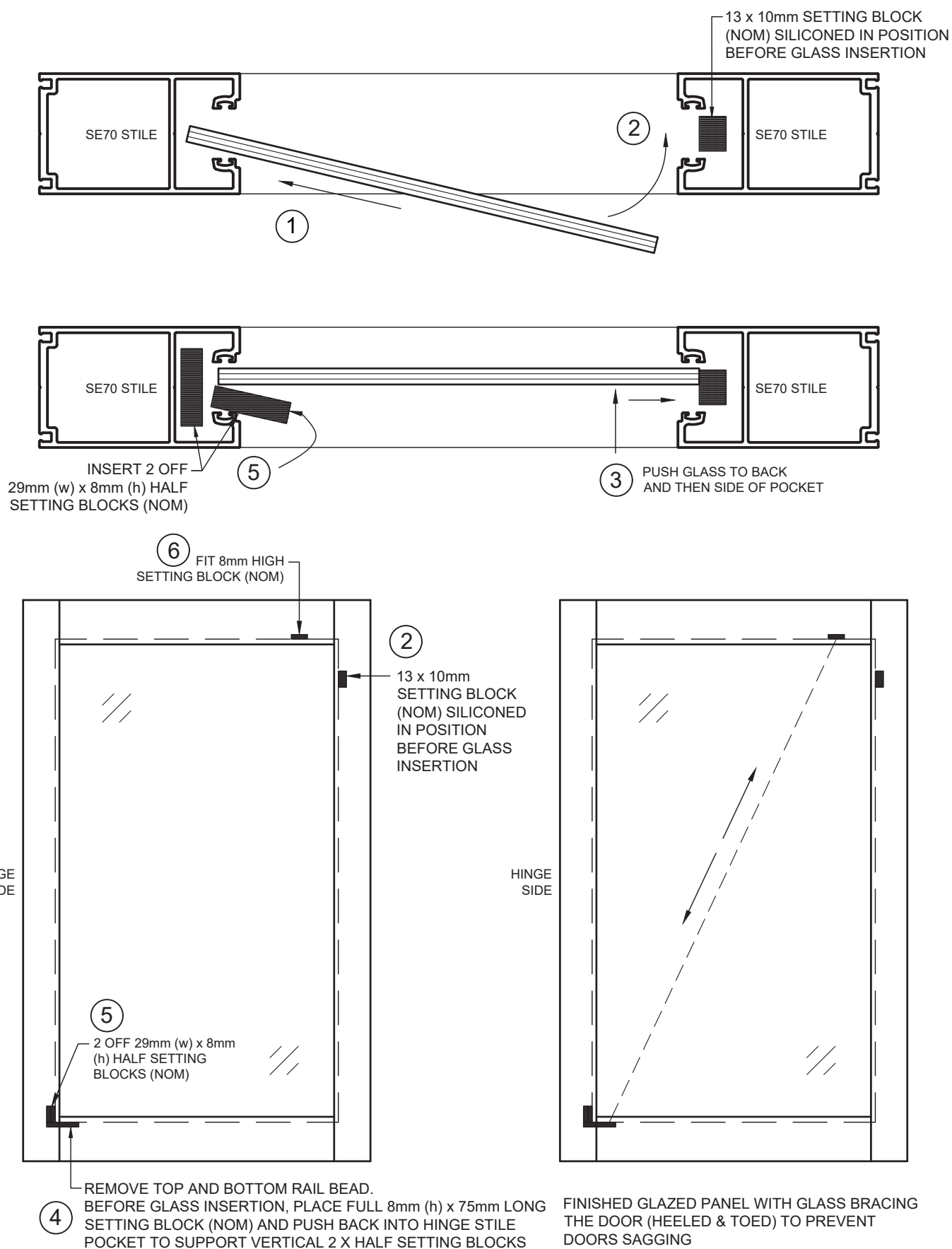
Double Glazed Details - Captive



	WEDGE INNER		CO-EXTRUDED BACKING GASKET
GLASS THICKNESS	ID COLOUR	REF. (GAP)	REF. (GAP)
18mm THICK	ORANGE	GR48 (8mm)	CE49 (6mm)
24mm THICK	YELLOW	GR46 (6mm)	CE36 (2mm)
25mm THICK	BLUE	GR45 (5mm)	CE36 (2mm)

12. Glazing Details

Door Glazing & Bracing Details - Glass Insertion Sequence



FRAMING

Your new **Hawkesbury Commercial Multi-Fold Door** frames have been manufactured using the highest quality materials available to the Architectural industry. Constructed from Architectural grade aluminium, these products are highly corrosion resistant and exceptionally strong. With a moderate amount of maintenance, the **Hawkesbury Commercial Multi-Fold Door** frame will retain it’s good looks and resist the elements for years to come.

The **Hawkesbury Commercial Multi-Fold Door** frames are the product of extensive research and development and designed to resist corrosion and rusting, but as with all external elements on the building require some maintenance to keep them looking good and performing well. Depending on how harsh the environment elements are, the maintenance period will vary. Refer to recommended maintenance table below.

Your **Hawkesbury Commercial Multi-Fold Door** frames should only ever need to be washed down with a soft bristled brush using warm water and mild detergent. Rinse well with fresh water and remove any detergent residue. Strong detergents and abrasive cleaners should never be used to clean the **Hawkesbury Commercial Multi-Fold Door** frames as they may scratch or damage the surface finish.

MAINTENANCE PERIOD TABLE

ENVIRONMENT	RECOMMENDED MAXIMUM MAINTENANCE INTERVAL
Mild	Six Months
Moderate	Three Months
Tropical/Severe	One Month

Environmental Definitions:

Mild – Being rural, away from the coast and remote from industry and urban activity.

Moderate – Being mainly urban, inland and away from heavy industry.

Tropical – Being coastal/marine, subject to salt deposition and within 15km of the Eastern coast or 10km of the Western coast of Australia.

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